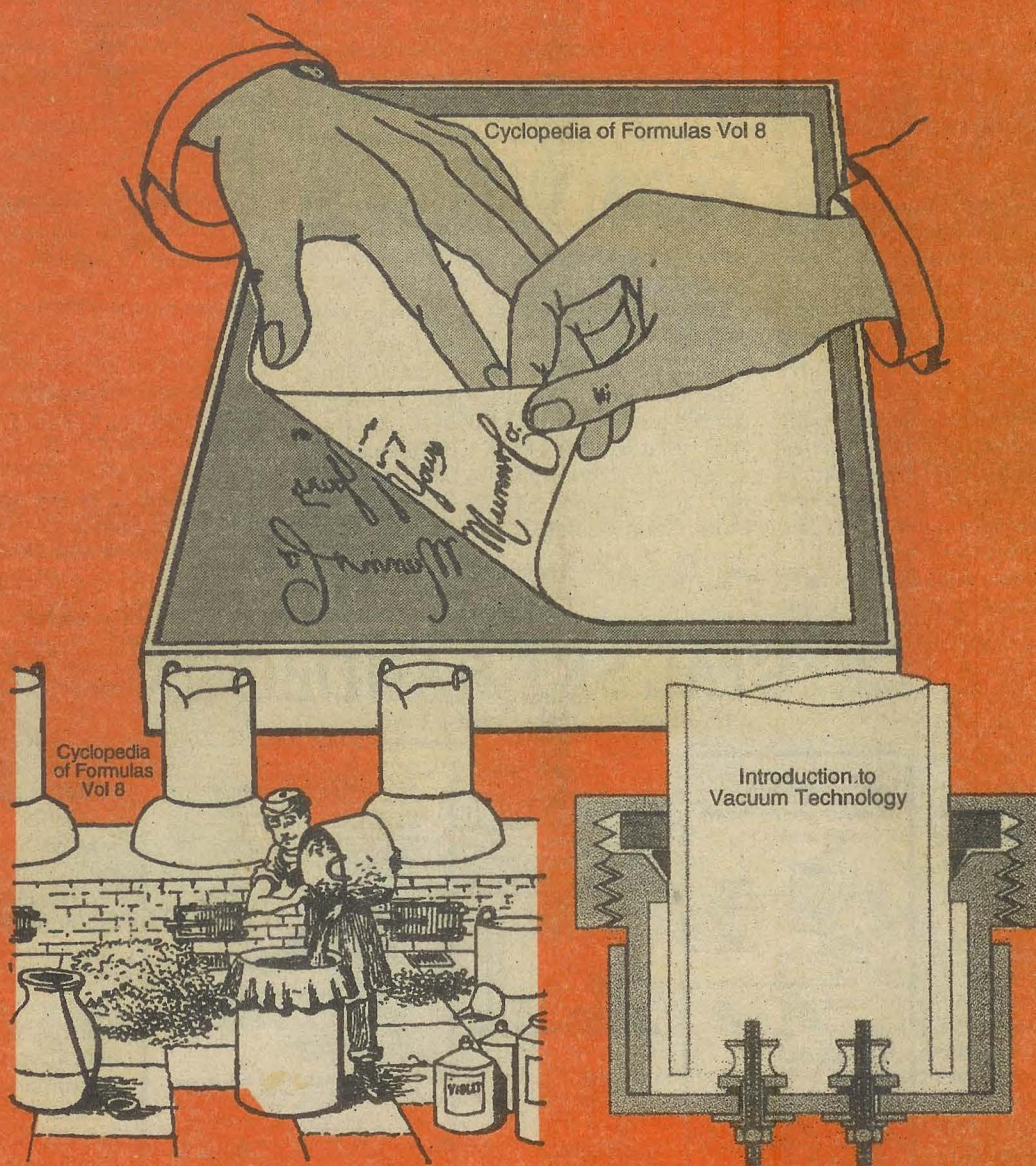


# SECRETS!

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Unusual technical books, past and present, of exceptionally high quality revealing skills and secret processes almost forgotten.



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# Ancient Radio Apparatus

Construction, Operation,  
& Restoration

## CRYSTAL SET SOCIETY

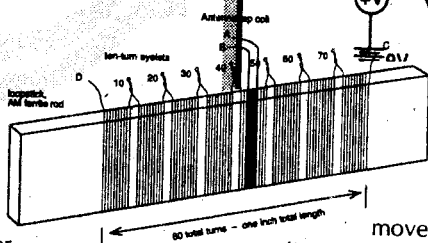
REPRINTS FROM  
JULY 91 TO MAY 92  
by Phil Anderson, W0XI

Radio can't get any simpler than crystal sets! Anyone can build one! But what do you do after you've wrapped an oatmeal box with wire? Here's your answer.

In July 1991 Phil Anderson from Lawrence, Kansas launched "The XTAL Set Society". You should have signed up. But you still can. And! You can find out what you missed by ordering a copy of this reprint of his newsletters for the first year. If you're into crystal sets, you'll find this interesting reading.

You get articles on building a basic field strength meter, a shortwave crystal set, "Why Did Those 1920s Crystal Sets Work Anyway?", a bare bones crystal set, an FM crystal set, a five part compression-capacitor crystal set (with part sources), a list of early articles on crystal sets, a toroidal crystal set, matching your antenna to your set for maximum signal reception, detector analysis, a 20 part crystal set, and other bits and pieces.

Yes, you'll find info on joining the society. Crystal sets' are fascinating because of the



challenge of getting more performance out of less hardware - a move from complexity to simplicity.

That's a refreshing change! I think you'll find this quite interesting. Get a copy! 8 1/2 x 11 plastic spiral binding about 36 pages

Cat. no. 395

\$10.95

## More! Volume 2!

XTAL SET SOCIETY VOL 2  
by Phil Anderson W0XI

More interesting articles from July 92 to May 93 newsletters. Articles include: lead pencil detector, minimum detectable signal, detector biasing for improved sensitivity, double tuned circuits, universal crystal set, FM crystal sets, the electrolytic detector, the coherer revisited, Miller '595' Tuner revisited, and a galena detector from Italy, and more. Good reading. 8 1/2 x 11 plastic spiral binding 39 pages

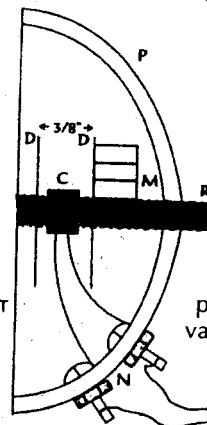
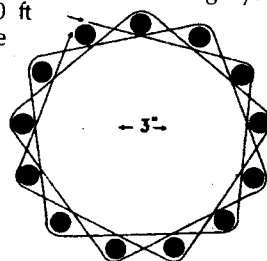
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## New! Volume 4!

XTAL SET SOCIETY NEWSLETTER VOL 4  
edited by Phil Anderson W0XI

More articles! From 1994, including crystal set drive 400 ft vertical, a portable crystal set, fox-hole razor blade set, two



Quaker Oats radios, home-brew headphones, basketweave coil, measuring coil capacitance, formula derivation, home-brew curve tracer, home-brew headphones, crystal earphones, ten best crystal circuits, and more.

Good stuff! 5 1/2 x 8 1/2 staple spine 86 pages

No. 3019

\$9.95

You can join the XTAL Set Society and get six issues of the newsletter for \$9.95, \$11.00 US for Canadians, and \$16.00 US outside the U.S.

THE XTAL SET SOCIETY

PO Box 3026  
St Louis MO 63130

Tell 'em Lindsay set ya...

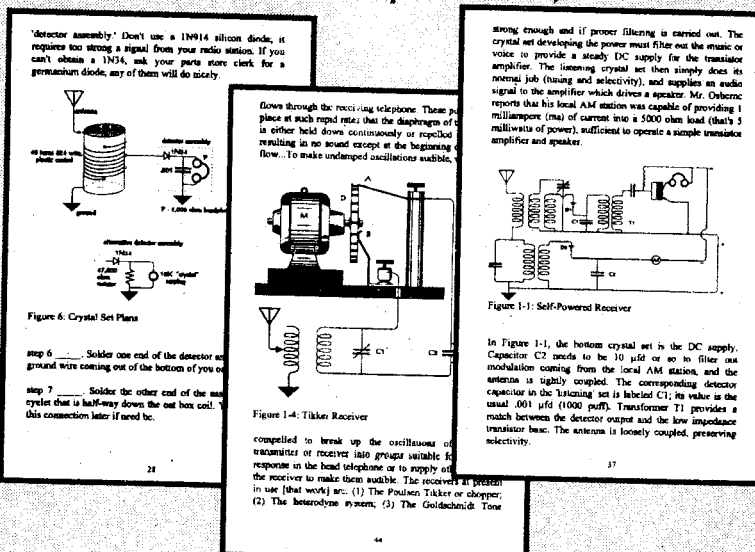
## THE CRYSTAL SET HANDBOOK (VOL 3)

by Philip Anderson

Volume 3 of the Xtal Set Society Newsletter has been reprinted in the first three chapters. Topics covered include the Tikker Detector, shortwave crystal sets, the simplest crystal set, circuit alternatives, vendors and more.

Starting with chapter four you get basic essential background information on coil inductance formulas, coil 'Q' and coil capacitance, detector loading, matching techniques for maximum earphone volume, and advanced matching. After a couple of wire tables and values, you get an extensive bibliography on crystal set books and magazine articles, some old and some relatively recent. You'll

## CRYSTAL SET HANDBOOK (Newsletter Reprints Vol 3)



also learn how to join the Society, and you'll find out that the author has a PhD in engineering and is one of the founders of Kantronics.

With this book you'll learn how to build a crystal radio even if you've never done it. If you have built one, you'll want this book because it will show you how to maximize performance. Remember, the simpler the design, the more care that must go into each component if you're to get top rate performance.

Interesting. If you're a crystal radio nut, get a copy of this. You'll learn simple testing and design techniques that engineers use. Great accurate information. Consider it. 5 1/2 x 8 1/2 paperback 133 pages

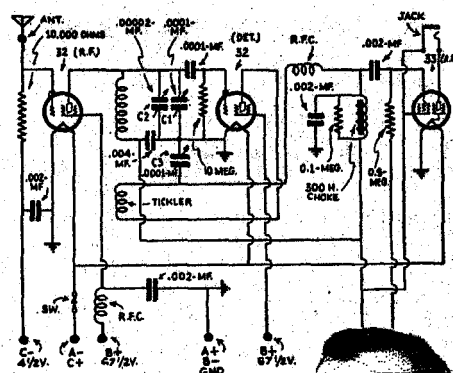
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find that the original tubes listed are usually difficult to find today. Included is a

a new chapter showing how you can use transistors to replace hard-to-find vacuum tubes. You'll even see the circuit that was lashed together on a table top one night using junk box parts, one of my wife's hair curlers and alligator clips. When I hooked it up to an antenna strung across the basement ceiling and attached a 9 volt battery, signals started



***Incredible How-To,  
Reference, and a special new  
chapter on solid-state sets!***

popping in like crazy. In a couple of minutes I heard an urgent message from a ship's captain off Seattle asking for a navigator to help him through shallow water. Not bad, considering I live near Chicago!

**HOT PERFORMERS!** These small regenerative receivers are extremely simple, but do they ever perform! I've built dozens of them, and they never fail to amaze me! Even master machinist, Dave Gingery has built these sets.

This is the nuts for the experimenter, the



survivalist who is concerned about basic communication, shortwave listeners, ham radio operators who collect old receivers, and just about anyone interested in old-time radio.

Great book. Best old-time radio book I've ever seen. And I look at every one I can get my hands on. Consider it carefully. Even if you never build one of these radios, you'll get hours of enjoyable reading out of this book. Top rate. Order a copy.

8 1/2 x 11 paperback 260 pages  
Cat. no. 4643

**\$15.95**

the book. We agree perfectly upon the effectiveness of these devices. Indeed, it was the inception of this that first made practical, long-distance radio possible. A good, properly used regenerative detector may develop a gain of 30 decibels or more, equal to that of three non-regenerative cascaded stages.

But, as you know, one always gets only what one pays for. Buy a fancy, store bought receiver and you pay for results with money. Build a "homebrew" regenerative job, and you pay for it in the effort of building and operating it with patience and care, two words that most people scarcely know any more...

*It has been my experience that the good old vacuum tube still makes the most effective regenerative detector, particularly the RF pentode. Next best, in the solid state line is the junction FET, as you suggest. But it takes two of these to do the job of one good pentode tube. However, all the FETs need is a nine-volt battery, no power supply required, a real advantage as you say.*

Through the years I've found that the "Throttle Capacitor" mode of regeneration control, along with a properly adjusted tickler coil (as upon page 56, 58, 62, 66 and 259 of your book) is by all odds the smoothest and most effective regeneration control method. For pentode tubes, of course, a

pot in the screen circuit is ok, too. But, in general, the capacitor is my favorite - never critical, noisy or "jumpy", I've found. I've also found that when a tube is used, the higher the gridleak resistor the better (my best job used a 20 megohm leak). But for FETs, one megohm seems about right. (Too low and the sensitivity is down. Too high and the thing gets "fussy.") I would disagree, but not argue with, your theory of audio feedback through the power-source. I would feel that the inductive reactive effect of the audio transformer, or choke is the culprit. Pure resistance coupling does not develop "fringe howl," for instance. Also I find that with most FETs, a 1000 ohm source resistor is better than the 2700 ohm one that you suggest in the diagram at the top of page 247.

Building and using regenerative receivers continues to be a pleasurable experience for me. I have tried to get some young fellows of my acquaintance into this sort of activity with negligible success; they'd rather spend daddy's money upon fancy, store-bought gear. They do not realize how much honest education and real, challenging adventure they're depriving themselves of by that attitude. Too bad...

*You are doing your part to keep the great self-education process alive and well. Keep it up!*

**C. F. "Rock" Rocky**

*Dear Mr. Lindsay:*

A good friend of mine has sent me a copy of your re-done Short Wave Radio Manual of 1934, the year, incidentally, that I first received my amateur license. So it takes me back most pleasantly to the days of my youth. That I have enjoyed perusing it very much goes without saying, I believe.

*It was also pleasant to read your commentary upon building regenerative receivers at the back of*

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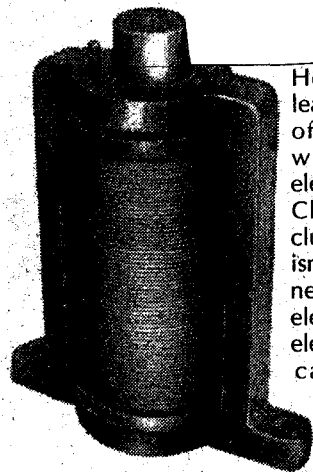
# ELECTRO-MAGNETS

**SOLENOIDS, ELECTROMAGNETS AND ELECTROMAGNETIC WINDINGS**

by Charles R. Underhill

reprinted by Lindsay Publications

Creating an electromagnet is quite easy as Faraday discovered, and as you and I know. But creating an electromagnet that generates a field of needed amperage at avail

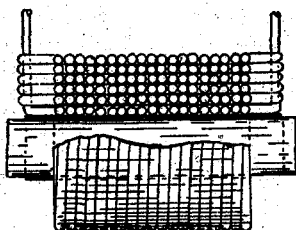


Here you'll learn the secrets of creating working electromagnets. Chapters include: magnetism and permanent magnets, electric circuits, electromagnetic calculations, the solenoid, practical solenoids, iron-

clad solenoid, plunger electromagnets, electromagnets with external armatures, electromagnetic phenomena, alternating currents, AC electromagnets, quick-acting electromagnets and methods of reducing sparking, materials and bobbins, insulation of coils, magnet wire, insulated wire, windings, forms of windings, heating of windings, and tables and charts. There are also 233 illustrations listed showing everything from a practical multiple-coil winding to rim solenoids telescoped to form disk solenoids.

Some things have changed since 1921 such as better insulation and higher-permeability iron, but amps are still and amps and Oersted's are still Oersted's.

Build that perpetual motion machine that some people claim is possible. Or how about a flying saucer? Or how about just getting a copy for your reference library? When the need arises, you'll have rare information immediately available. Excellent book. Get one! 4 1/2 x 8 paperback 342 pages Cat. no. 20960 \$13.95



# CONTENTS

(just a fraction of the topics)

How to Make an Electric Fireless Cooker, An Alarm That Rings by Sound, Make Your Own Electric Toaster, An Electric Stop for the Phonograph, Make the Alarm Clock Turn on the Light, Lighting the Gas Stove with an Electric Spark, A Simple Socket for Small Electric Battery Lamps, The Pocket Flashlight May Become a Spot-Light, Immortalizing Baby's First Shoes, Home-Made Electrical Device Keeps Cigars Moist, Locating a Projecting Nail in a Shoe by Flashlight, Taking Care of the Storage Battery, Making a Wet Battery from Ordinary Dry Cells, Did You Forget to Put Out the Cellar Light?, A Suggestion for Lighting a Club-House, How to Use an Old Nitrogen-Filled Lamp, A Milk-Can Vacuum Cleaner, A Small Motor Used to Open Large Doors, An Indirect-Lighting System for Your Own Home, A "Loaded" Door-Bell Button, How to Reduce Polarization in Sal Ammo-

nounce the Charged Storage-Battery, An Inexpensive Electric Coffee-Pot, Why That Sewing Machine Motor Slips, How to Make a Miniature Electric Reading Lamp, Taking Flashlights by Electricity, How to Make a Two-Step Night-Light Transformer, Make Your Own Christmas Tree, The Burglar Makes a False Step, Increasing the Voltage of a Dry-Battery, To Prevent the Ears from Perspiring When Using Telephones, The Sleeper Must Get Up to Stop the Alarm, An Electro-Thermostatic Control for House-Heating Boilers, An Electrically-Heated Inhaler for Respiratory Troubles, The Ordinary Buzzer Used for a Shocking Machine, Why Stay Awake to Call the Nurse, A Toy Electric Signal for Miniature Trains, How Short Circuits Occur on an Automobile, Why Use a Step-Ladder to Change Light Bulbs, How to Make All the Clocks Strike at Once, Drying Shoes with Heat from an Electric Globe, Twisted Picture-Cord Used for a Fan Motor Brush, The Electric Lamp As a Cooking Device, New Applications of Electricity, An Electrically Driven Gyroscope and How It Acts, Strong Wireless Signals in Winter Time, Electricity Direct from Coal, How Electric Signals Direct a Big Show, Connecting a Spotlight, in an Automobile Dynamo Circuit, Moving X-Ray Pictures, Describing the Electric Circuit by Comparing It to Hydraulic Circuit, An Effective Method for Recharging Dry Cells, A Silver-Plating Bath and How to Use It, How Electrolysis Destroys Water-Mains, The Effect of Electricity and Music on the Human Organism, Photographing Music on a Film, X-Raying the Oyster for Pearls, Testing Tips for the Electrician, A Soldering Iron Heater, A Speed Indicator Will Count the Turns for Your Coil, Paper Strips on Armature Amplify a Buzzer Tone, How to Test the Strength and Stability of Magnets, Charging Storage Cells from Service Mains, Railroad the Telephone in a Crowded Office, An Elaborate Electrical Plug-In Clock, Poor Contact Will Impair Battery Efficiency, Improved Electrode for a Water Rheostat, An Emergency Repair for Commutators, Testing the Polarity and Compounding of Motors, A Magnetic "Fishing" Tool for Locating Blind Wiring, A Coating to Make a Battery-Box Acid-Proof, An Arm-Band to Hold a Lineman's Tools, How to Tie the Invisible Armature Knot, Tinfoil Used As a Substitute Fuse, Utilizing a Second-Hand Magnet, A Shunting-Out Switch for an Ammeter, Electric Lights to Call Employees, Thermostat Made from a Brass and an Iron Strip, A Lamp Guard to Keep Large Electric Bulbs from Falling, Making an Electrical Socket from Wood and Strips of Brass, A Simple Base for a Small Battery Lamp, Soldering Large Vertical Cables by the Pouring Method, Why Distilled Water is Used for Batteries, Cutting or Breaking Gage-Glass with Electricity, Home-Made Rheostat for Service Lines or Batteries, A Magnetic Lifter for Engine Valves, Three Worn-Out Dry Cells Make One Good One, A Good Permanent Base for Small Battery Switches, Light the Inside of Your Touring Car, Positive or Negative Which is Which, Turn on the Light with the Power, A Low-Tension Magneto Becomes a Dynamo, Correcting Engine Starter Trouble, An Electric Light for the Lawn-Mower, Removing Sediment from Storage Battery Cells, Making Silver Contact Points for a Spark Coil, An Inexpensive Method of Charging Storage Batteries, A New Device for Testing Electric-Light Bulbs, A Winding Machine with a Revolution Counter, The Normal Running Temperature of Electric Machines, Automatic Telephone System Invented by Undertaker, One Bell with Two Push-Buttons, Making Tape from Cotton Cloth for Electrical Work, How to Use a Hairpin As a Switch Fuse, and much, much more!

# MAKE THINGS ELECTRICAL!

**Jam-Packed Electrical Projects and Ideas! Fun Reading!**

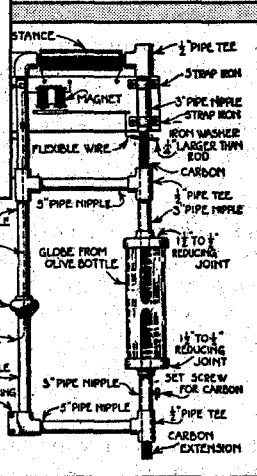
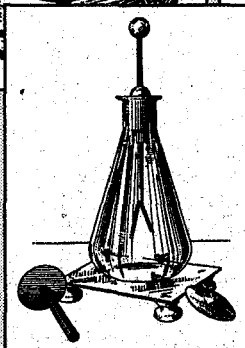
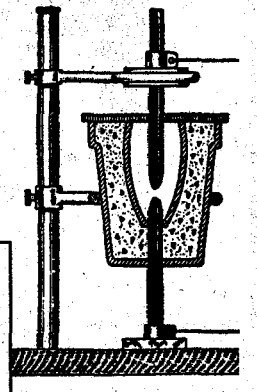
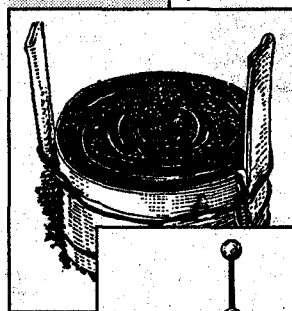
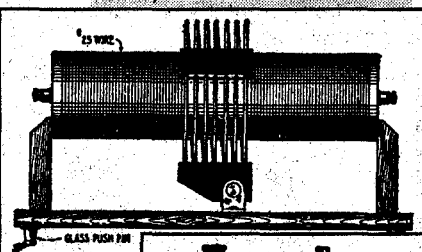
**HOW TO MAKE THINGS ELECTRICAL**

compilation by UPS Book Co

reprinted by Lindsay Publications

Here you get a collection of short, nifty electrical collection articles that first appeared in the pages of *ence Magazine* just after World War I. Each is and regardless of whether or not you build you'll enjoy what you get here. This is a sort of equivalent of the *Boy Mechanic* books.

Some of this not worth doing. Do you really want to build a toaster? But the Tesla coil that gives a 12" spark is very interest-



ing (you may have seen it reprinted in other books). You might want to try making the electric cannon, the magnetograph, and electro-scope, and more. If you're careful, you might want to try to make a selenium photo cell. You get numerous articles relating to motors, testing them and repairing them. You can make a water rheostat, a storage battery, arc furnace, simple arc lamp (I can smell the ozone, now), and much more.

Great ideas. Lots of fun. Something for everyone. Get a copy. 5 1/2 x 8 1/2 paperback 427 pages Cat. no. 21494 \$12.95

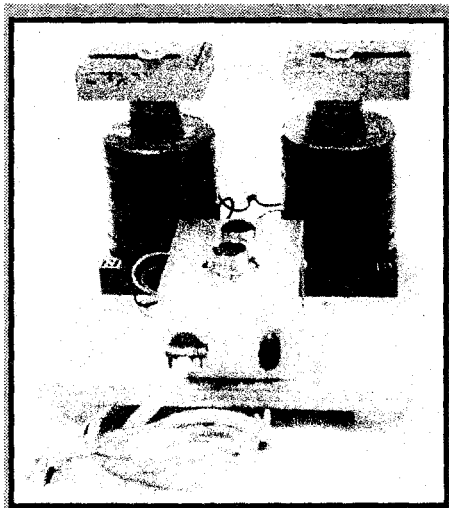
# BUILD A MAGNETIZER! Make & Restore Magnets

## HOW TO BUILD A MAGNETO MAGNETIZER

by Dave Gingery

Many people collect and restore old engines and in the process discover that the old iron magnets in the magneto have lost most or all of their magnetism. Without a healthy spark, the engine won't run.

Here, Dave will show you how to build a device to recharge these old magnets. It's certainly not a novel invention. What Dave has done is show you how to build a proven device from currently available materials, and at low cost.



You can recharge old magneto magnets, and create new iron magnets for experimental purposes. This will not recharge newer alnico, samarium, and similar alloy magnets since these need an enormous magnetic impulse beyond the capabilities of this machine. And beside these newer magnets usually don't go "dead" like "plain" ones.

Dave will show you how a magneto works, how to test one, how the magnetizer works and will show you in detail how to build one. He'll give you all the tricks on building the base, winding the coils, building and testing the power supply, and, of course, on using the machine.

You can build this machine quickly and inexpensively. Dave will show you how to avoid what few problems you might encounter. Great for engine restorers, science experimenters, or even as a science fair project. Geez! Maybe you can magnetize that bolt in your neck so you can attract beautiful women. Well... maybe not. Another great how-to manual from master builder, Dave Gingery. Order a copy today. 8 1/2 x 11 booklet 36 pages

Cat. no. 3008

\$7.95

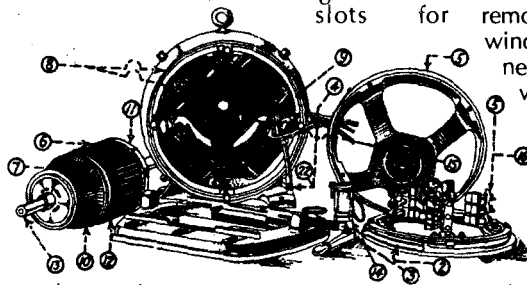
# Armature Winding & Motor Repair

## ARMATURE WINDING & MOTOR REPAIR

by Daniel H. Braymer  
reprinted by Lindsay Publications

From 1920 comes this motor rewinding book loaded with drawings and photographs that will show you how to rebuild both AC and DC machines.

Chapters include: DC machines, AC machines, shop methods of rewinding DC armatures, making commutator connections, testing DC armature windings, operations before and after winding DC armatures, insulating coils and slots for



winding, shop methods for rewinding AC machines, testing induction motor windings for mistakes and faults, adapting DC motors to changed operating conditions, practical ways for reconnecting induction motors, commutator repairs, adjusting brushes and correcting brush troubles, inspection and repair of motor starters and generators, diagnosis of troubles, methods to solve special troubles, tables and more.

You'll find a chapter that shows you how

to build special tools and jigs, an armature sling, a pinion puller, coil winding machine, a coil taping machine, commutator slotter, armature banding machine and more.

The motors described are large types used in factories. But the principles apply to the smaller motors you and I use. You'll learn how to reconnect induction motors for different voltages and phases, how to operate a DC motor as a generator and vice-versa, change the DC motor windings for different voltages, and more.

You'll be taught all the techniques — from removing old windings and cleaning slots, to winding the coils, insulating the end connections, inserting the coils, painting the windings, relining split bearings, and much more. You get data on all types of wave and lap windings, varnishing and insulating materials, and much more.

I make you no promises, but this is the logical place to start should you want to rewind a motor to particular voltage, wind a generator or alternator for use with a windmill or waterwheel, rewind a big generator for use as a welder, modify a DC motor for use in an electric car, and so on.

This is a beautiful book. You get over 500 pages of clearly written, wall-to-wall practical how-to with excellent illustrations. It's a gem that should be in the reference library of most "machine freaks" (that includes you, son). Get a copy 5 1/2 x 8 1/2 paperback 540 pages

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\$18.50

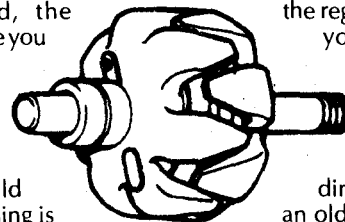
## RUN THREE-PHASE MOTORS!

### RUN THREE PHASE MOTORS ON SINGLE PHASE POWER!

Yes! You can run three-phase motors on single-phase power using any one of three excellent methods in use since the turn of the century. First, lathes, drill presses, and other machine tool motors can be run with the capacitor method. Second, the autoformer method (a technique you should buy rather than build) is useful for motors running under continuous full load. And finally you can run a whole shop full of three-phase motors from a single, easy-to-build dynamic converter! No rewinding is necessary. These methods are good to at least 150 hp and 220 volts! Low starting currents and excellent power factor are possible.

Basic three-phase and induction motor theory is included. This booklet and some experimentation can have you up and running. 5 1/2 x 8 1/2 booklet 15 pages, 18 illustrations — a BARGAIN!

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only \$3.00

## ALTERNATORS!

### ALTERNATOR SECRETS

If you know the secrets of modification, you can get large amounts of power from a common auto alternator. You can build a portable powerplant driven by a gasoline engine to run brush-type power tools, lights, and AC-DC appliances at remote locations. You can hot-charge storage batteries, or even do light arc welding. Operation of the regulator is explained so that you can build a custom regulator, if needed, to provide regulated output voltages other than 12.

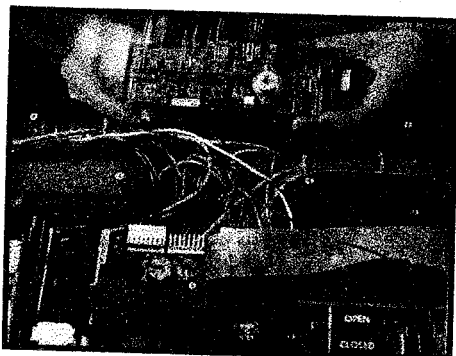
Learn how you can make almost any ordinary induction motor (like an old washing machine motor) put out 120 volts at 60 cycles without rewinding or internal rewiring. These secrets are worth the price of the booklet alone.

We've jammed a ton of information into 16 pages with small type to keep printing costs down so that we can keep the retail price the same as the old edition. Valuable, rare info! Get a copy. 5 1/2 x 8 1/2 booklet 16 pages

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# FIX YOUR COMPUTER!



## SERVICING PC-BASED EQUIPMENT

by Don Doerr

Here's a great book to help you service PC computers. The author wrote this in attempt to answer the most commonly asked questions from service technicians. I think he did a good job.

You get detailed flow charts to locate a problem. You can do your own repairs are a fraction of the cost of having it done. And if you DO choose to have someone else do the repair, you'll be able to ask intelligent questions. You'll be able to protect and recover your data. And much more.

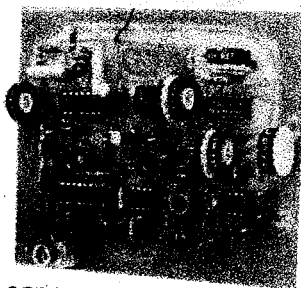
If you take your PC to a dealer with a bad floppy drive, chances are they will replace it with a new one. Yet the author will tell you "floppy drive alignment is one of the easiest and most profitable areas of repair on PCs. Anyone who tells you that floppy drives are not worth repairing is either ignorant of how easily they can be repaired or is trying to ensure job security..." In other words, you can fix your own. Maybe you can make money doing it for others.

You get charts, diagrams, explanations of how components work, what the terms mean, pin configurations for common CPU chips, buses, ROM BIOS, error codes, and much more.

This is not for raw beginners, but you don't need to be an expert either. This can move you beyond the beginner stage. I just built and configured a high end 486 machine running UNIX, and I can tell you that this is one of the better books on hardware I've seen. I'll guarantee it won't answer every question (no book can), but this is worth the money.

Used PC's are cheap. Buy one and refurbish it. Maybe you can get started in repair. For me, the cost of the book is nickel-and-dime compared to the thousands I've got tied up in hardware that fills your order. Consider it carefully. 7x9 paperback 354 pages  
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# How to Unscramble Video!



## VIDEO SCRAMBLING & DESCRAMBLING FOR SATELLITE & CABLE TV

by Graf & Sheets

If you have purchased or plan to purchase a satellite dish to capture signals coming from the many Earth-orbiting satellites, this book is for you.

You get:

- An understanding of encoding/decoding systems
- The theory and techniques of video encryption and decryption
- An overview of the rules and regulations governing the availability and use of satellite signals, antennas, and programming materials
- Schematics and details for several encoder and decoder projects.

Originally published in 1987, this book provides detailed information on everything from simple cable encryption systems to commercial satellite systems such as VideoCipher II™, the B-Mac System, and even the Data Encryption standard.

Although the authors are quick to point out that the information is not be misused in theft of signal, they have provided a wealth of schematics, printed circuit board layouts, IC chip specs, patent reprints, list of satellites and the scrambling systems they use and much more. This is a quality master reference that any video/satellite fanatic will find useful. Order a copy today! 8 1/2 x 11 paperback 246 pages  
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The Complete Manual of

# PIRATE RADIO



By

**ZEKE TEFLON**

## THE COMPLETE MANUAL OF PIRATE RADIO

by Zeke Teflon

If you want to go underground and run your own pirate radio station, this booklet will tell you how to go about it. Chapters include preliminary considerations, getting away with it, to buy or build, the studio, transmitters, antennas, mobile operation, finding parts, test equipment, safety measures, and technical references.

You get schematics and parts lists for building a one-watt and a five-watt FM transmitter. You get practical details on antennas and coax, and lots more.

Pirate radio doesn't make a lot of sense to me. If you have to keep changing your frequency so that the FCC doesn't find you, how are your listeners going to find you? And without advertisers, who is going to pay for all this?

I've always thought about building a small FM transmitter to be used unlicensed for a short time during disaster relief after tornados or hurricanes, for example, when local radio stations might be off the air. Take the battery operated transmitter to the highest site in town and you could be on the air broadcasting vital information. That makes sense.

If you want to try to outfox the FCC with pirate radio, I guess you can try. It shouldn't be too hard. They're understaffed. But if you cause interference with my stereo equipment or computer, I'll come over and burn your house down. You've been warned.

Unusual. I can't believe this booklet will be in print very long. If you want one, you had better order one in the near future.  
5 1/2 x 8 1/2 booklet 48 pages  
Cat. no. 3011

\$5.00



## HOW TO BUILD A SOLAR CELL THAT REALLY WORKS

by Walt Noon

Yes! You CAN build a solar cell that converts sunshine into electricity. And it's really quite easy.

Modern high efficiency solar cells based on silicon crystals are difficult and dangerous to manufacture. You would need exceptionally expensive equipment just to perform the most basic experiments. But fortunately there is another method.

Walt Noon will show you how to quickly and inexpensively build a copper oxide photo cell. Admittedly, its overall efficiency doesn't come close to modern silicon cells, but neither does the cost. You can crank out cells for pennies. Connect many cells in parallel and series, and you can generate surprising amounts of power.

The process requires only simple tools. The chemicals, like all chemicals, can be dangerous if mishandled, but the worst is probably nitric acid which is used to thoroughly clean the copper.

## Build a SOLAR CELL that really works!

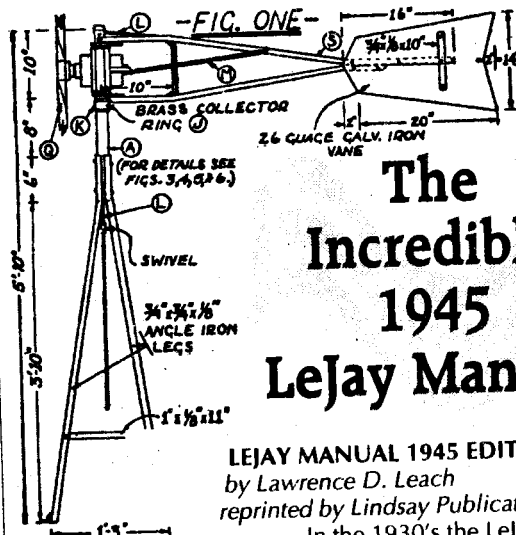
He'll show you to make a working cell, test it, troubleshoot it if necessary, and even give you ideas on an experimental painted cell that he's working on. In addition, he'll give you schematics of test circuits, sample applications, and interesting projects that he's tried. You'll also get names and addresses of suppliers.

That author is not a professional, but he has safely built and used these solar cells, and he's willing to show you how its done. You get a 24 page booklet with many drawings, schematics and photographs that describes the relatively simple process in detail.

Build solar cells! Perhaps you can make some improvement in the process that will improve efficiency. Build electronic equipment. Charge batteries. Build a great science fair project. No matter what your objective, you'll find this to be a fascinating project worth trying. Rare information! Order a copy of this inexpensive booklet today.

5 1/2 x 8 1/2 booklet 22 page  
Cat. no. 819

\$4.95

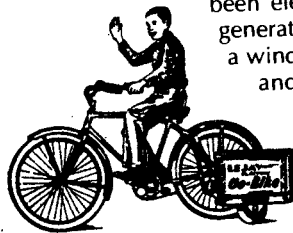


## The Incredible 1945 LeJay Manual!

LEJAY MANUAL 1945 EDITION  
by Lawrence D. Leach  
reprinted by Lindsay Publications

In the 1930's the LeJay Mfg Co in Minneapolis began publishing a booklet describing unusual electrical projects. As new editions came out, new plans were added until by 1945 there were 50 separate "chapters".

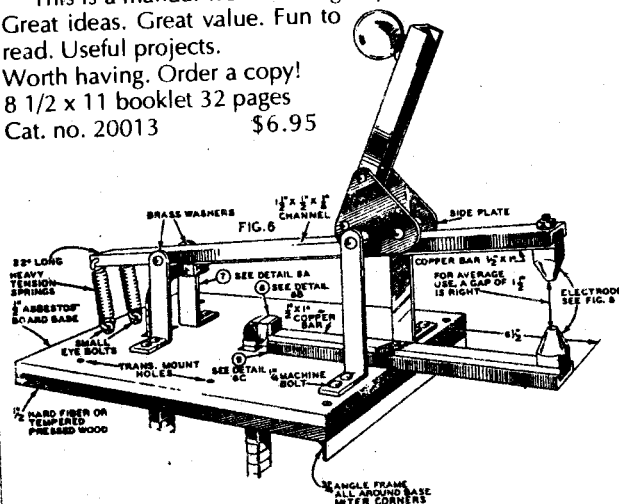
Most of the articles in this edition deal with the conversion of now-antique auto generators into 110 volt alternators, other voltage generators and motors. A lot of this info was used in areas of the country that hadn't been electrified. You could buy old generators from auto junk yards, build a windmill, repair old auto batteries, and use the electricity to run homebuilt motors, welders and so on.



Most of the information in this booklet is now of limited value simply because you can't get the generators listed. But the rewinding data, hints and tips provided can help you in other rewinding projects for other types of generators.

There ARE several projects in this booklet each of which is worth the entire price of the publication. For instance, you can build a small but useful spot welder powered by nothing more than a string of auto batteries. You get plans for an arc welder, a transformer spot welder, a carbon-arc torch, electric bicycle, a water wheel, a windmill and more. Each plan is well illustrated.

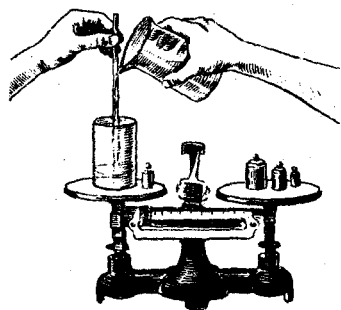
This is a manual worth having in your reference library. Great ideas. Great value. Fun to read. Useful projects. Worth having. Order a copy! 8 1/2 x 11 booklet 32 pages  
Cat. no. 20013 \$6.95



## Just a few of the 50 Unusual Electrical Projects & Plans

- Plans for 110 Volt AC Light Plant made from Ford Model "T" Generator
- A 6 Volt Slow Speed Generator (with plans for all-metal windmill)
- 6 Volt & 12 Volt Slow Speed Generators from Dodge "G" or "GA" Northeast Generator also from other Generators
- A 32 volt slow speed wind light Plant Generator
- How to Make a Grinder, Series Motor, Constant Speed Motor, A Universal AC or DC Motor and a Soldering Iron
- A 75 to 110 Ampere Arc Welder Made from Dodge "G" or "GA" Generator. Also Dual Welders.
- Pendulum Type Fence Controller made from Ford "T" Coil
- Plans for Building a Complete Wind Light Plant Including Tower, Propeller and Generator Charger
- A 110 Volt AC Light Plant Generator
- A "B" Eliminator For Your Battery Operated Radio
- An Automobile Generator Booster Control
- Directions for Repairing Your Own Batteries
- A Water Wheel Made from Old Automobile Wheel
- An Electric Outboard Motor from Old Ford "T" Generator
- A Gas Engine or Motor Driven Generator with Drawings in Detail
- An Armature Growler for Testing Auto or Slow Speed Armatures
- A 110 V. or 220 VAC Portable Transformer for Arc Welding
- A 110 Volt Spot Welder — 1 Kw. Input Normal Draw 10 to 11 Amps
- A Direct Drive 32 Volt Wind Plant — All Metal Construction
- A Battery Spot Welder
- Two Types 110 Volt AC Insect Exterminators
- An Electric Scooter Using a 6 or 12 volt Battery for Power
- An Electric "Go Bike" Using a 6 or 12 volt Battery for Power
- A Carbon Electrode Holder for Soldering, Brazing and Light Welding Direct from Six-volt Storage Batteries
- 110 Volt AC 500 Watt Self Excited Generator from Dodge Model "G" or "GA" generator
- An AC Welding Transformer Using Dodge Generator Coils

Appendix: Windpower Information, Definitions, etc



# MANUAL OF FORMULAS

**Great Chemical Recipes from 1932!**

**MANUAL OF FORMULAS, RECIPES, METHODS AND SECRET PROCESSES**  
edited by Raymond Wailes  
reprinted by Lindsay Publications

Here's a great low cost collection of hundreds of formulas on just about every subject you can imagine compiled from the pages of Popular Science Magazine and published in 1932.

You can make soap bubble liquids, solidified gasoline, waterproof matches, lacquer for brass, silver solder, photographic printing paper, slow-drying putty, blackboard paint, thermite welding mixtures, pewter alloy, garden sprays, soaps, preparations for dance floors(?), concrete waterproofing compound, fireworks, cosmetics, adhesives and much more.

You'll learn how to mix up compounds for polishing and plating metal. Learn how to blacken brass, blue steel, to make silver nitrate from old spoons, mix up low temperature alloys, dry flowers, brew wine, re-ink typewriter ribbons, make blueprint paper, dye cloth, make flypaper and much more.

Unlike other formularies, this one is new enough to be useful and old enough to have unusual formulas. And the price is quite reasonable compared with the large volumes which are interesting but often contain many formulas that are of little practical value. An interesting book of definite value. Worth having. Order a copy today. 4 1/2 x 8 paperback 250 pages

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# Vacuum Form PLASTICS!

*"...simple forming for about \$15.00 or less..."*

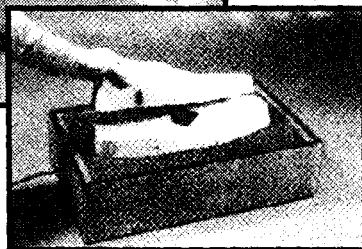
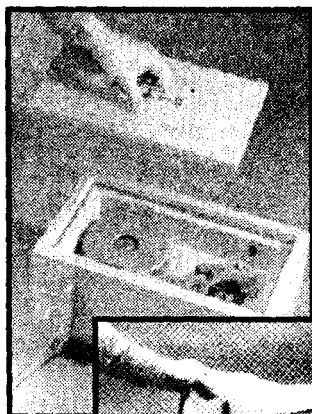
**DO IT YOURSELF VACUUM FORMING**  
by Douglas E Walsh

The author wrote me:

*"I tried the obvious way first, as I'm sure many others have by using a kitchen oven and shop vacuum cleaner. The results were OK, but limited to simple parts in thin plastics. The oven part works fine but the vacuum cleaner just didn't provide enough vacuum.... Real vacuum pumps cost hundreds of dollars..."*

*I thought about it some more and came up with eight other sources for vacuum, most of which are inexpensive and one is totally free! I was then able to combine a vacuum cleaner with a cheap source of higher vacuum. This gave me that magic combination of high vacuum and high flow necessary for serious forming.*

*This easy-to-read book shows you how to get set up to do simple forming for a r o u n d \$15.00 or less if you scrounge for parts. You can also build a two-stage high vacuum sys-*



*tem for \$50-\$60 that can form up to 1/4" thick plastics...."*

You can produce magnetic signs, parts for models, and all kinds of things if you use your imagination. You can put this simple, but powerful mass-production technique to work for you because you don't have to spend a fortune on equipment.

Chapters include the basics, heat sources, vacuum sources, forming equipment, plastics, molds, forming and finishing. You get straight forward to-the-point how-to with plenty of photos and drawings.

Possible money maker! Fun to try. Here's an excellent book by a man who has done it, and explains it clearly. Get a copy! 5 1/2 x 8 1/2 booklet-style spine 128 pages

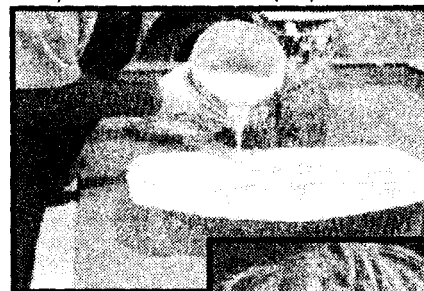
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# CAST ALMOST EVERYTHING EXCEPT METAL!

**THE PROP BUILDER'S MOLDING & CASTING HANDBOOK**  
by Thurston James

Try this! Take a dead carp and make a couple two-part plaster molds before it starts to decompose. Then make urethane castings with the molds. These are the techniques that Hollywood uses to make props for movies.



This is a great book all about making molds and casts for theatrical uses. You'll learn about one- and two-part plaster molds, a two-part mold using the shim method, molds from dental alginate and moulage, and a variety of molds using latex rubber, Silicone RTV rubber, injected Silicone molds and more.

You'll learn what type of release compound to use for each combination of mold and casting material.

Then you'll learn how to do absorption casting with latex and neoprene casting rubber. You can make papier-mache, Celastic and fiberglass casts. You can cast with hot melts such as wax, machinable wax, hot plasticine, hot melt glue, and hot melt rubber. You can make fake "glass" bottles to break over people's heads, or panes of glass to safely throw people through during a barroom brawl (or the Christmas family get together). You might want to cast with polyester resins, urethane foam, plastic wood, Durham's Rock Hard and more.

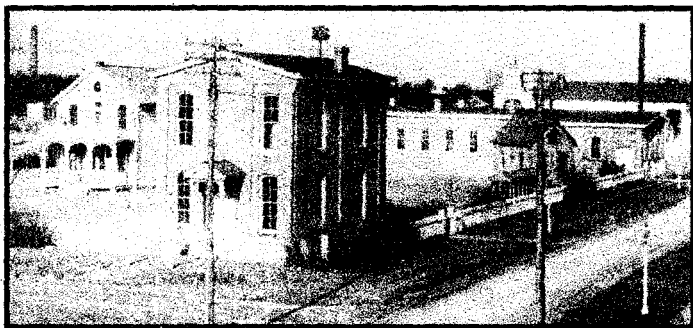
Then there is a whole section on vacuum forming with thermoplastics using a large, high-performance, home-made vacuum forming machine. You can watch as artists reproduce railings, cornice molding and even tile roofs in lightweight plastic sheeting. It's quite impressive. And the whole book shows you how you can do it, too.

Wall-to-wall photos. Detailed how-to. Hints, tips and secrets. This is a book on casting practically everything EXCEPT metal. Rare information. I think you'll really like it. You get your money's worth, and then some in my opinion. 8 1/2 x 11 paperback 236 pages

Cat no 1328

**\$19.95**

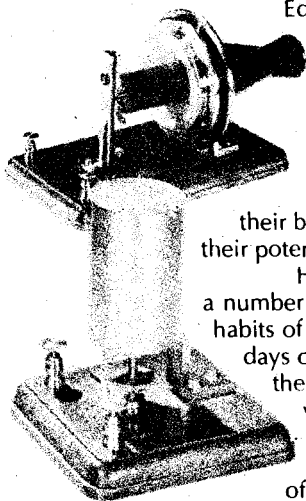




## VISIT EDISON'S INVENTION FACTORY!

WORKING AT INVENTING:  
THOMAS A. EDISON AND THE MENLO PARK EXPERIENCE  
edited by William S Pretzer

"Genius is 1% inspiration and 99% perspiration." I contend, and Edison admitted it, that he was no genius.

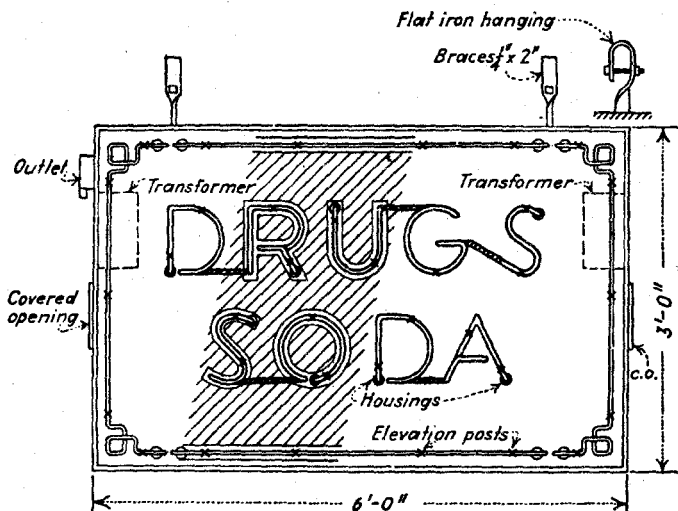
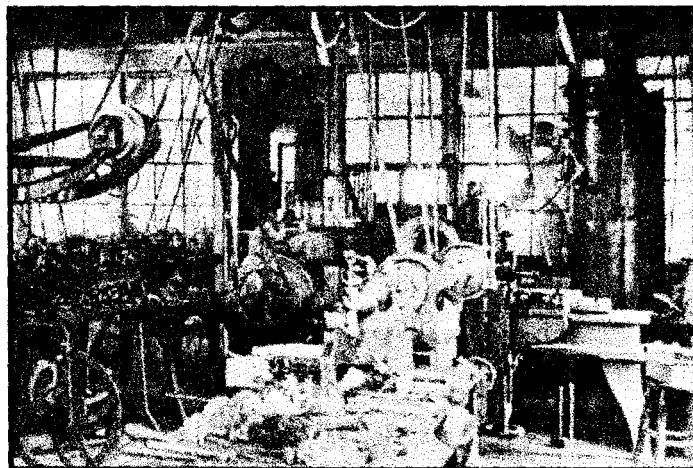


He was a brute-force-and-ignorance inventor with an energy level few people possess and a mind that could turn out an endless stream of clever ideas. But he achieved success because he worked long and hard. We all know talented people who sit on their butts and never come close to realizing their potential. Edison was not one of them.

Here you get a collection of essays from a number of authors giving insight to the work habits of Edison and his associates in the glory days of Menlo Park. The essays are entitled: the meanings of the two Menlo Parks, working at Menlo Park, machine shop culture, telegraphy and Edison's invention factory, Edison's development of the telephone, invention of the phonograph, and modernity of Menlo park.

Each essay is well illustrated with new and old photos, diagrams, and maps. It's almost like going back in a time machine. This book is part of series published by Henry Ford Museum & Greenfield Village where Edison's Menlo Park complex has been faithfully recreated. Excellent book. You'll find yourself wishing you could have been one of Edison's staff. What fun it must have been. Get a copy. 7 1/2 x 9 1/2 paperback 142 pages  
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## NEON SIGNS

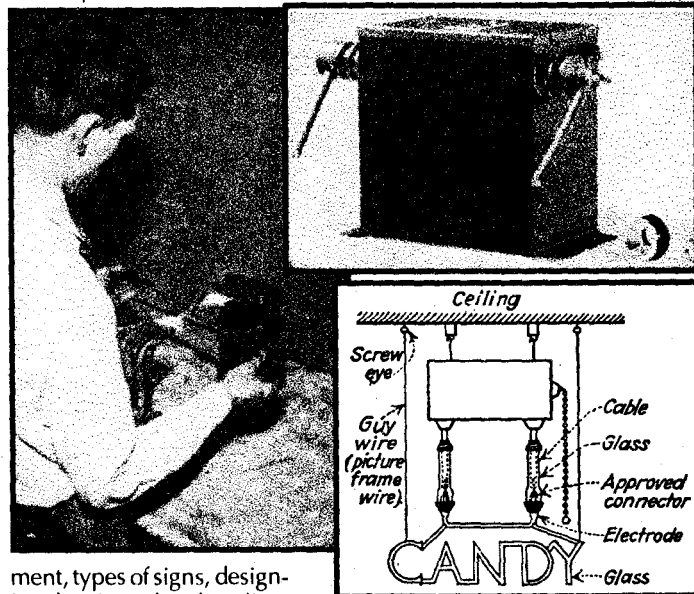
**Great How-To on Glass  
Blowing, Vacuum Systems, High  
Voltage and more from 1935!**

NEON SIGNS  
by Miller & Fink  
reprinted by Lindsay Publications

Sure. Equipment, techniques, and sign design have changed since this book first appeared in 1935, but not all that much.

Even if you're not interested in making neon signs, you'll find loads of useful information on rare gases, glass blowing, and vacuum systems that could be useful in experimental physics, high voltage, or even in building your own experimental vacuum tubes!

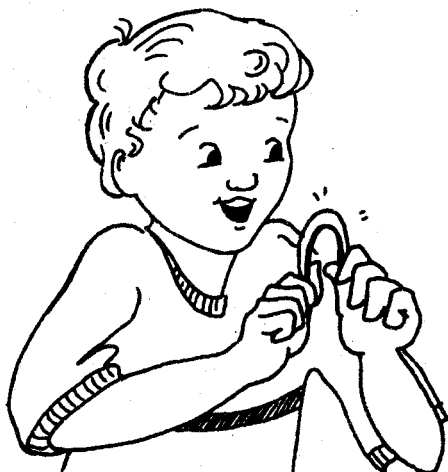
Chapters include the luminous tube, materials, electrical equip-



ment, types of signs, designing the sign, glass bending, pumping systems, bombarding, filling, testing, aging, installation equipment, special applications, tricks of the trade and more!

This is a quality straight-to-the-point book loaded with diagrams and photographs that you won't find just anywhere. It might be fun to make bizarre neon signs, repair "antique" signs, or just get into the trade. But even if that's not your goal, you'll find loads of unusual, interesting information. Consider this carefully. It certainly is NOT run of the mill. Order a copy. 5 1/2 x 8 1/2 paperback 288 pages  
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## Slime & Bones!

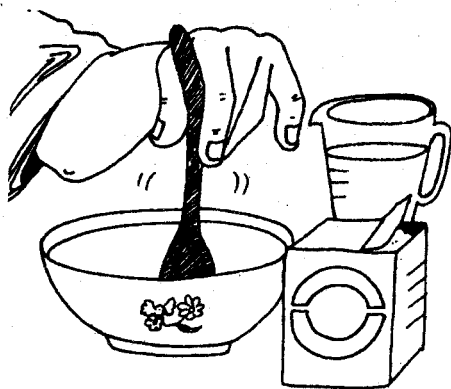
(Lindsay's favorite cookbook...)

**HOMEMADE SLIME AND RUBBER BONES**  
by William Wellnitz PhD

Here it is at last! Lindsay's favorite cookbook. No wonder so many of my girl friends have gone to their graves early...

Actually, this is a book of simple science experiments and projects aimed at the kindergarten through fifth grade crowd. And that includes you, doesn't it? You can make slime, grow crystal gardens, push a straw through a potato, make rock candy, create floppy bones, make a pencil "bend", produce a batch of invisible ink, make eggs that float or bounce, and lots more.

Try some of these standard tricks and then show them to your kids or grandkids. They'll think you're the smartest, most entertaining person alive. Hell! Show 'em to your braindead neighbor. He'll be equally impressed!



All you'll need are common household items. Each project usually takes less than 30 minutes.

Great entertainment for kids. The author is a professor of biology and wrote this book for teachers and parents. And for kids like me. Consider getting one. 7 1/2 x 9 paperback 116 pages

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# Fifty-Five Wild Projects!

Including...

- Jacob's Ladder
- Plasma Sphere
- Induction Coil
- Van de Graaff generator
- Tesla Coil
- Kirlian Camera
- Superconductor Disc
- See-in-the-Dark Viewer
- Robots
- much more!

**GADGETEER'S GOLDMINE!**

by Gordon McComb

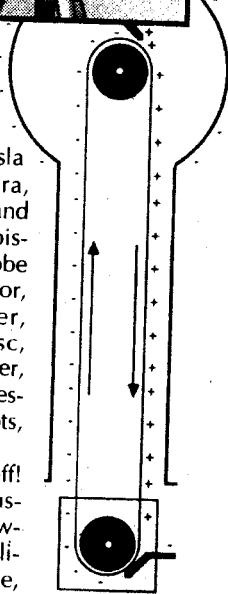
Here, in a single book, are 55 off-the-wall devices you can build.

You get a Jacob's ladder, plasma sphere generator, induction coil, Van de Graaff generator, Tesla coil, Kirlian camera, piezo film speaker and amp, He-Ne laser pistol, variable-rate strobe light, radiation detector, universal receiver, superconductor disc, see-in-the-dark viewer, shape-memory alloy, espionage devices, robots, and more!

And this is good stuff! — plenty of detail: illustrations, diagrams, how-to text. The list of suppliers is quite impressive, too. This is a book every unorthodox experimenter should have in his library and never loan. Get one! 7 1/2 x 9 paperback 406 pages

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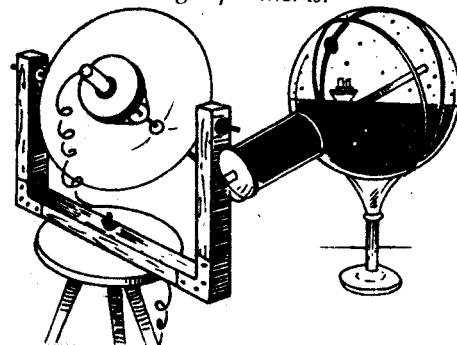
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## 100 AMAZING MAKE-IT-YOURSELF SCIENCE FAIR PROJECTS

by Glen Vecchione

"•Grow your own colorful crystals. •Create a moon craterscape and a Martianscape. •Build a telescope that really works. •See how much pollution is in the air you breathe. •Make a 3-D stereoscopic viewer that seems to bring drawings and pictures to life. •Find out why boats float. •Light a lamp with homemade wet and dry batteries. •Play a musical instrument made from ordinary, water-filled wineglasses. •Take photographs with an easy-to-make pinhole camera. •And 91 other exciting experiments."



## GREAT SCIENCE FAIR PROJECTS!

These are great science fair projects. Build an electroscope, electromagnetic crane, solar cell, wind turbine, polarized light box, bottle & pipe trombone, parabolic microphone, a seismograph, and more.

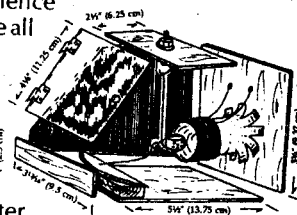
Each project is accompanied by informative drawings showing what the project entails. But! Just following directions in this book isn't going to give you a complete project. The pinhole camera project, for instance, will show you what is needed to build the camera. But you'll have to do extra research on your own to learn how to use photographic paper and chemicals. It's easy. But being forced to do that will open up a whole new world for you to explore. And that's what science fair projects are all about.

Excellent book. Anyone who thinks of himself as an experimenter

or inventor MUST be familiar with these projects. Get a copy of this now. Don't wait until the day before the science fair. 'Cause when you call crying to tell us you need the book Next Day Air and we've run out, we will sit here and laugh at you. Order now and have it when you need it! Good book. I'm going to hang onto mine for dear life. 7x10 hardcover 224 pages

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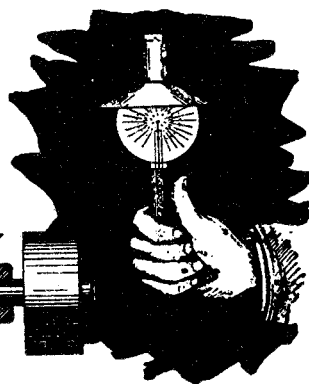
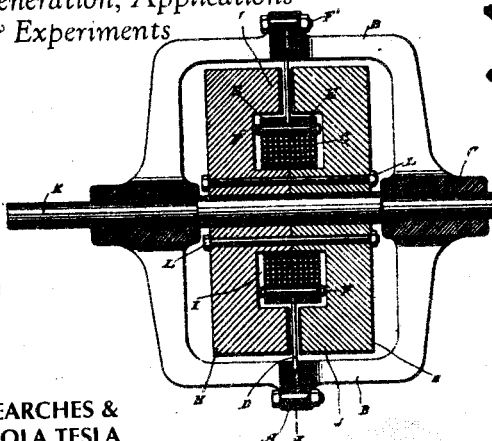
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# HIGH VOLTAGE!



Generation, Applications  
& Experiments



**INVENTIONS, RESEARCHES & WRITINGS OF NIKOLA TESLA**  
by Thomas Commerford Martin  
reprinted by  
Lindsay Publications Inc

The greatest world's fair ever constructed was underway in Chicago in 1893. More electricity and more electric lights were used in the fair than in the entire city of Chicago. It was the electric age, and Edison was doing with commercial battle with Westinghouse and its star, Nikola Tesla.

In 1893, this volume, a comprehensive collection of Tesla's work to that point, was published. And although it is now quite rare, you can have a high quality reprint for a small fraction of what cost us to obtain an original copy.

Most people think of lightning generators when they think of Tesla, but that's a very narrow perspective. People should think of alternating current. Tesla created the power system used throughout the world today — one that operates at 50 and 60 cycles per second.

Tesla experimented with other frequencies, iron and air core transformers, as well as motors and generators. Tesla didn't just one day decide he was going to build his famous lightning bolt generator. It was but another step in a series of experiments that had begun years before. Here you get a complete record of this research up to 1893.

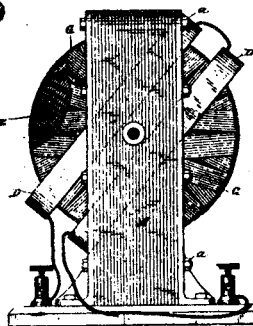
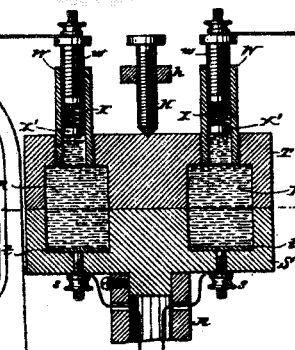
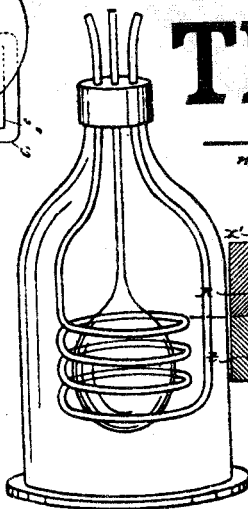
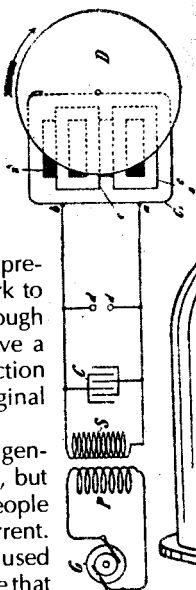
It's all here — the AC experiments and inventions that lead Tesla to experiment with ever higher voltages and frequencies, the neon tubes and fluorescent lights, unusual high frequency alternators and even magnet motors.

If you want to carry on Tesla's unusual research, you must walk in his footsteps. You must do your homework. Here in one volume is the early work that will help you get your mind in sync with his and perhaps suggest what he was thinking at the time, and give you ideas of where to take his experiments.

Every Tesla fan, every high voltage experi-

*Inventions,  
Researches &  
Writings of*

## NIKOLA TESLA



menter, and every electrical engineer should have a copy of this classic book. Just as much as Edison, Tesla created the world in which we live today. Now you can study the results of his research, attend his special exhibitions, and devour his lectures, with this single volume. Order a copy today! 5 1/2 x 8 1/2 paperback 496 pages  
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## PART II

### TESLA EFFECTS WITH HIGH FREQUENCY AND HIGH POTENTIAL CURRENTS

Introductory — The Scope of the Tesla Lectures; The New York Lecture. Experiments with Alternate Currents of Very High Frequency, and Their Application to Methods of Artificial Illumination, May 20, 1891; The London Lecture. Experiments with Alternate Currents of High Potential and High Frequency, February 3, 1892; The Philadelphia and St. Louis Lecture. On Light and Other High Frequency Phenomena, February and March, 1893; Tesla Alternating Current Generators for High Frequency; Alternate Current Electrostatic Induction Apparatus; "Massage" with Currents of High Frequency; Electric Discharge in Vacuum Tubes.

## PART III

### MISC. INVENTIONS AND WRITINGS

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## PART IV

### APPENDIX ON EARLY PHASE MOTORS AND THE TESLA OSCILLATORS

Mr. Tesla's Personal Exhibit at the World's Fair; The Tesla Mechanical and Electrical Oscillators.



# HIGH VOLTAGE!

Generation, Applications  
& Experiments



## CONSTRUCTION OF A QUARTER MILLION VOLT IMPULSE TRANSFORMER

by Steve Hansen

Introduction:

"High voltage pulses in excess of 100 kV and of multi-microsecond duration are required for many types of apparatus used in vacuum physics. Examples include charged particle sources, flash x-ray tubes, pulsed neutron and gamma ray sources and plasma immersion implantation, to name but a few.

There are many ways of producing high voltage pulses. Some examples include capacitors that are directly charged by transformers with voltage multiplier (Cockcroft-Walton) circuits and parallel charged/series discharged capacitor banks (the Marx circuit). Transformers operating in a pulse mode are a simple and cost effective means of producing pulsed high voltage energy.

There are several common types of transformer that are useful for producing high voltage output pulses. A type familiar to most amateurs is the Tesla coil...

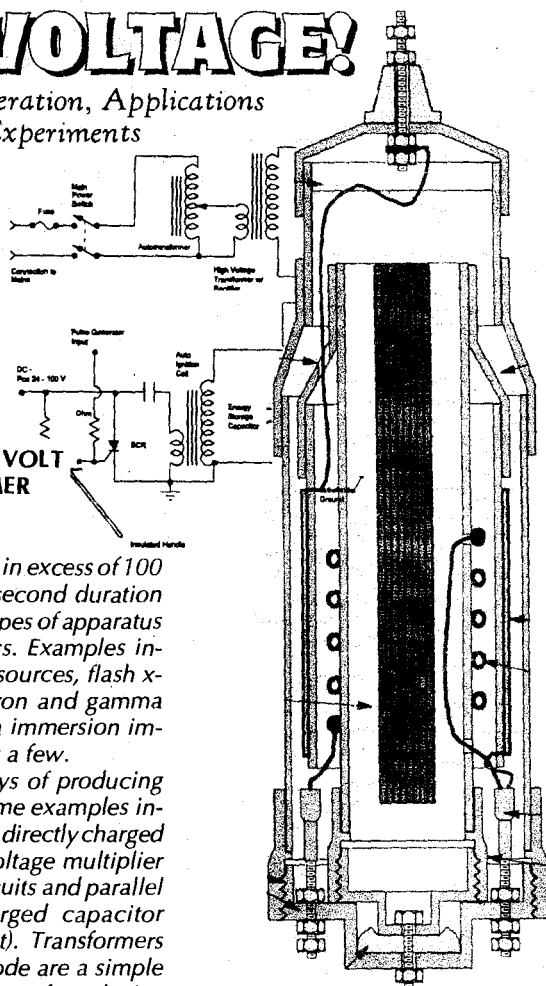
Another type of transformer is the non-distorting pulse transformer...

The third type of transformer is the high peak power pulse transformer, also known as a shock or impulse transformer....

The impulse transformer that is described here is powered by a 4.4  $\mu$ F, 10 kV capacitor. With a turns ratio of 36:1, the no-load output is in excess of 300 kV..."

So you thought you knew everything about high-voltage generators? Think again. Yes, I know you think Tesla is a god. But a lot has happened since Tesla, and he represents only the tip of the iceberg. Steven Hansen will introduce you to a segment of the high voltage iceberg you probably know nothing about.

Like a Tesla coil, the wiring diagram for a pulse transformer is ridiculously simple. The secrets lie in building a device that operates without shorting out. Hansen will show you how to build this impressive device using PVC, cop-



## 250,000 VOLT IMPULSE TRANSFORMER!

per tubing, a laminated iron core and other common materials. He'll show you the high voltage power supply similar to transmitter supplies traditionally described in the "Radio Amateur's Handbook" published each year by the ARRL.

There are only a few pages to this report. The cost per page is high, but when you see the quality of the content and the beautifully drawn diagrams, you'll realize that this information is quite reasonably priced. This is a jam packed report with proven how-to.

This beast will produce sparks only about 8" long due to its operating characteristics. If you want long sparks, go with a 300 kV Tesla coil. But don't even think of yourself as an expert in high voltage unless you're familiar this type of lightning bolt generator.

High quality material. Reprinted from Hansen's newsletter "The Bell Jar". Worth having. Get a copy. 8 1/2 x 11 pamphlet 10 pages No. 3017

\$7.95

### DISCHARGE & CONTROL CIRCUITS

The discharge circuit is shown in the lower part of Figure 4. The operation of the capacitor, the high voltage transformer, the test gap, and a charge indicator. The discharge circuit is shown in the upper part of Figure 4. The operation of the capacitor, the high voltage transformer, the test gap, and a charge indicator. The discharge circuit is shown in the upper part of Figure 4. The operation of the capacitor, the high voltage transformer, the test gap, and a charge indicator.

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## EXPLODING WIRES!

### EXPLODING WIRES

Principles, Apparatus and Experiments

by Steve Hansen

Exploding what? Wires? What good is it? It's about as much good as anything else in this crazy catalog. It's for fun. AND it is required course material if you are ever to get your mad scientist degree.

Exploding wires and foil go back a couple of hundreds of years when static electricity machines were being perfected. Even that crazy dude, Ben Franklin, blew things up with powerful jolts of electricity. It must have been really spectacular at parties! Exploding "wires" of frozen deuterium are being used to trigger experimental fusion reactions. And when you think about it, this is really a misapplied spotwelder of sorts.

Essentially you dump a vast amount of electrical energy through a thin wire in a very short time. The enormous current that flows through the resistance of the wire generates searing heat, melts the metal wire, vaporizes the metal, generates a blinding flash, and liberates a sonic shock wave (guaranteed to scare the neighbors).

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# HIGH VOLTAGE!

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Construction of a Discharge Tube

The basic elements of a discharge gauge are a glass tube (preferably borosilicate as the electrode region can get hot), a pair of suitable electrodes, and an evacuation port for connection to the vacuum system. A very nice tube may be made using open type electrodes with glass to metal seals. A demonstrable version made from a piece of chemical laboratory is shown in Figure 2.7. This might be considered to be overly complex but this particular design also serves as a good example of the type of vacuum apparatus that may be made from standard

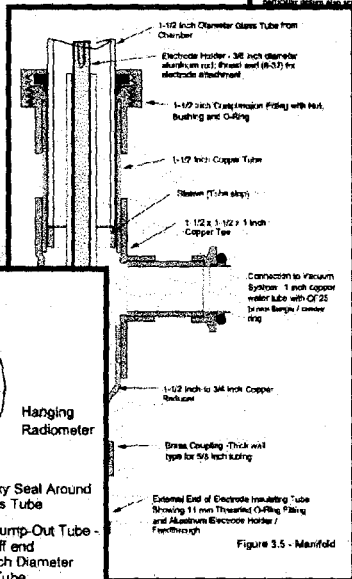


Figure 3.11 - Modified Radiometer

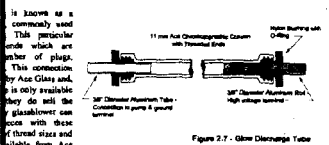


Figure 2.7 - Glass Discharge Tube

is known as a commonly used. This particular which are number of plugs. This connection by Ace Glass and is only available they do sell the glassblower can cope with these if thread sizes and suitable from Ace set of components

wide variety of vacuum apparatus by the experimenter. Several projects in Section 3 of her use of Ace components. is an 11 mm column, 1 foot in length, Ace catalog number 5820-04. The nylon #7506-02. Each bushing comes with an O-ring. The Ace components will cost about

a piece of 3/8" aluminum rod. The other electrode, which also serves as the evacuation aluminum tubing. Aluminum is to be performed over other common soft metals such as metals tend to quickly deposit the electrode material on the wall of the tube through an

called outgassing. The coating of spattered metal obscures the view of the discharge operation as the coating is nonconductive. Stainless steel is an acceptable alternative. If sliding such electrode through the nylon bushing and O-ring and then screwing the column. Finger tight will do it. Each electrode should project and reach or so beyond clear or PVC hose and hose clamps completes the tube assembly.

high voltage may be met transformer with a case are custom limited produce 5 kv rms per corner tapered in the such as this, a series of a variable to order to control the

is shown in Figure 2.8. This implementation uses NPN transistor which is added to a former. A four turn to maintain oscillation.

Figure 2.8 - High Voltage Supply with Modified Flyback Transformer

Figure 2.8 - High Voltage Supply with Modified Flyback Transformer

Figure 2.8 - High Voltage Supply with Modified Flyback Transformer

Figure 2.8 - High Voltage Supply with Modified Flyback Transformer

Figure 2.8 - High Voltage Supply with Modified Flyback Transformer

Figure 2.8 - High Voltage Supply with Modified Flyback Transformer

Figure 2.8 - High Voltage Supply with Modified Flyback Transformer

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Figure 2.8 - High Voltage Supply with Modified Flyback Transformer

## Vacuum Technology Intro!

AN EXPERIMENTER'S INTRODUCTION TO VACUUM TECHNOLOGY

by Steve Hansen

If you haven't explored the mysterious world of high vacuum, you must get started. Steve Hansen will show how to build projects that use simpler mechanical vacuum pumps to produce vacuums that not truly high by modern standards, but much higher than you an I are acquainted with. After you learn what's here, you'll be ready to jump into the higher tech world of diffusion pumps and the like.

Chapters include means of producing vacuum, vacuum technology, materials, vacuum applications and pressure ranges, low cost mechanical pumps, simple gauges, useful flanges and connectors, a simple vacuum workstation, a manifold for gaseous discharge and electron beam experiments, experiments with glow discharge proudced electron beams, the radiometer, a plasma sphere, Magdeburg hemispheres, along with lists of suppliers and references.

These are reprinted articles from Hansen's newsletter "The Bell Jar". Each is clearly explained, illustrated, and is proved how to using modern materials. Everything here is meat.

Take a refrigerator compressor and turn it into a vacuum pump. Build a glow discharge tube powered by a high voltage supply built from a modified TV flyback transformer. Make thermocouple gauges with op-amp controllers. Learn how to seal up equipment with o-rings, compression fittings, nylon washers, and more.

Build a replica of a very early cathode ray tube, the Braun tube. Build a cold cathode CRT. Build a radiometer. Build a plasma sphere—one of those spheres with the dancing colored electric arcs that change when you bring your hand near. And you can always re-enact the famous Magdeburg sphere experiment of the 1600's.

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## WIMSHURST PLANS!

THE WIMSHURST MACHINE  
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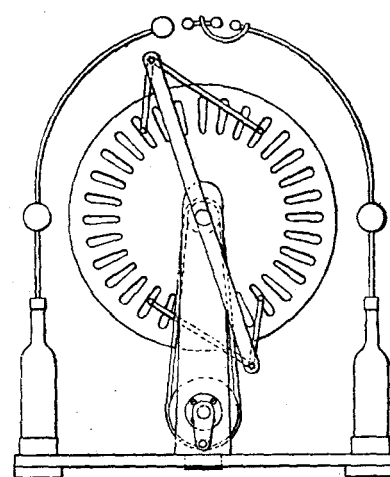
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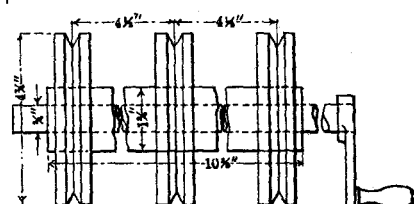
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by J. H. Couture

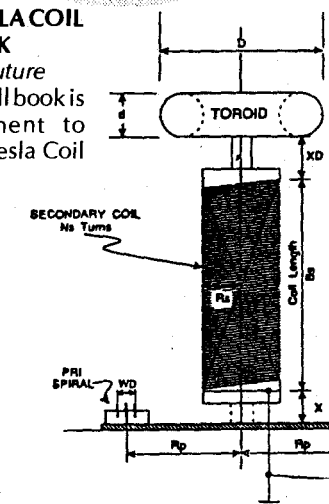
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### TESLA COIL CONSTRUCTION GUIDE

by J. H. Couture

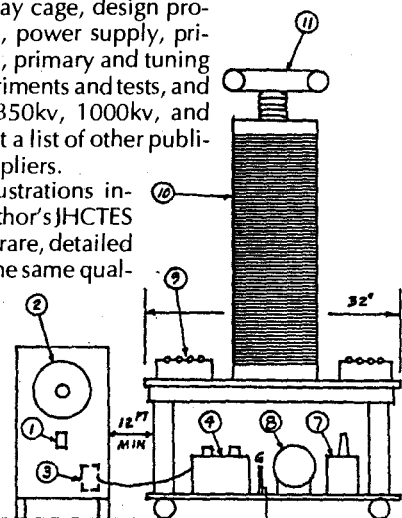
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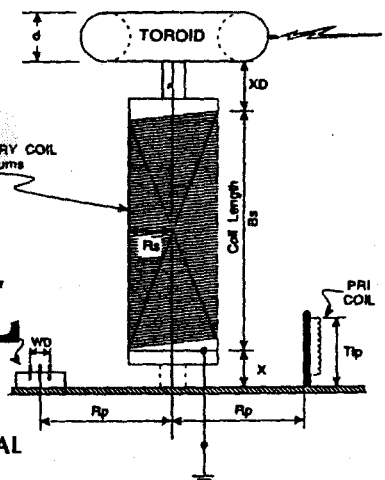
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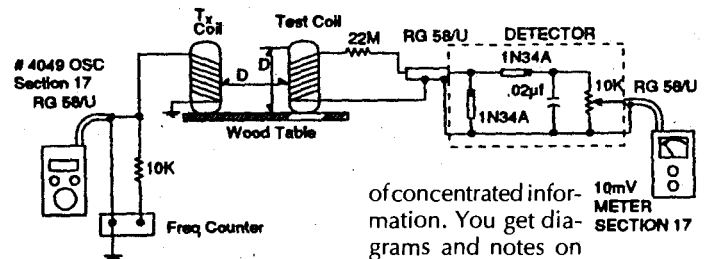
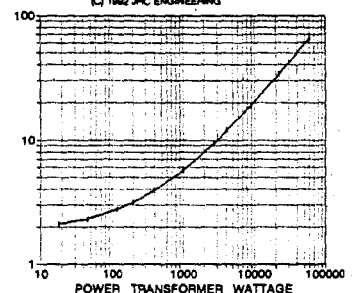
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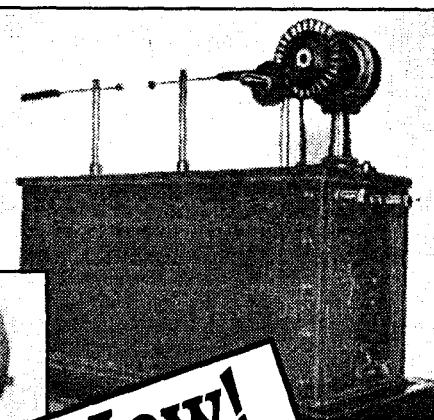
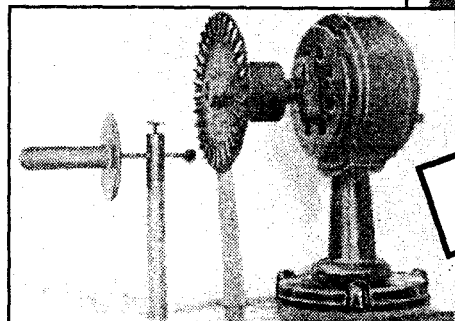


**THE TESLA HIGH FREQUENCY COIL**  
Its Construction and Use  
by Haller & Cunningham  
reprinted by Lindsay Publications

What you get here is a reprint of a very rare Tesla coil construction book from 1910. If, and I mean if, you can find an original copy, you will pay many, many times more than we are asking here. The research and

reference library of Tesla coil fanatics will not be complete unless you have a copy of this.

Chapters include general survey, the transformer, the condenser, the oscillation transformer, the interrupter, the construction of the boxes, assembling, theory of the coil, uses of the coil and dimensions of 7" standard coil.



**New!**

First, you build your power transformer so that you can convert 110 volts to 10,000 volts. This iron cored devil is 18" long and 6" in diameter. Then you fabricate a monster condenser from 10" x 12" sheets of glass and brass dipped in paraffin. The coil primary is 12" diameter while the secondary is 8" in diameter and 17" in length.

The chapter on interrupters is quite interesting because you are given options. You are shown the simple air-gap and the magnetic interrupter. Then you'll learn to build a motor-driven interrupter. In fact, the authors will show you how to build an electrolytic rectifier so that you can use a DC motor rather than an induction motor.

You get instructions on building the cabinetry and final assembly.

You don't get much theory here. The authors wrote this book to provide beginning experimenters with fool-proof plans so they could build a coil capable for generating 12" arcs. (A smaller 7" coil can be built that will provide 3" sparks.)

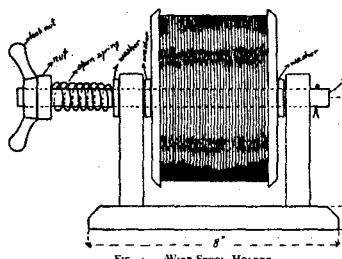


FIG. 4. — WIRE-SPOOL HOLDER.

The authors cover the usual uses for the coil: Geissler tubes, x-rays, brush discharge and so on. You'll find that the authors refer to Tesla's *Experiments with Alternate Currents of High Potential and High Frequency* which we have reprinted as well.

# TESLA HIGH FREQUENCY COIL

## Its Construction and Use

You get numerous photos and diagrams. Be warned, though, the photographs are "muddy" which is typical of the period. We've gone to special lengths to maintain the quality, but we didn't have much

to start with. Nevertheless, you'll find this book to be well illustrated.

If you pride yourself on an extensive Tesla library, I'm going to tell you that it isn't anywhere near complete until you have a copy of this. This is a gem not only because it is how-to but because it is so rare. I feel lucky to have found it. I think you'll like it. Order a copy. 5 1/2 x 8 1/2

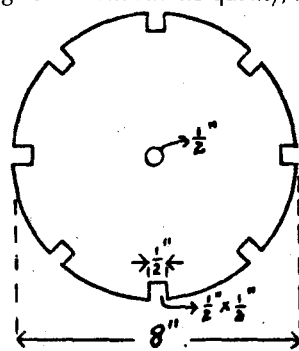


FIG. 8. — END SUPPORT FOR SECONDARY OF OSCILLATION TRANSFORMER.

paperback 119 pages  
No. 21567

\$8.95

**Rare 1910  
How-To  
Classic Back  
in Print!**

## From the Introduction

"In presenting this book on the Tesla coil to the public the authors... have merely made an effort to place in the hands of advanced amateurs in electrical science a practical working manual on the construction of high-frequency coils, now so useful in scientific investigation.

The attention of the authors was first called to the Tesla coil when they were fortunate enough to be given the use of the 7" standard coil described in the last chapter of this book. A systematic line of experiments was carried on with it, in order to study the effects of a change in the constants of the various circuits. All the mechanical and electrical details of construction were carefully worked out, and the authors finally decided to design and construct a larger coil. The coil, as first constructed, was a decided failure, due to too small a condenser capacity. For about five months they further experimented on the details of construction and finally arrived at the 12" coil described in this book. This coil they feel assured is as efficient as can be made. It is especially designed to give a high-frequency discharge of great volume..."

# HIGH VOLTAGE!

Generation, Applications  
& Experiments



## HOW TO BUILD A 40,000 VOLT INDUCTION COIL

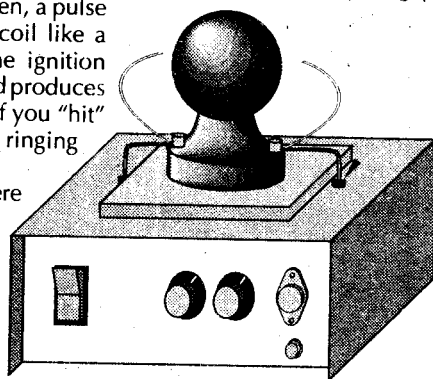
by Walt Noon

Are you looking for a fast and simple way to generate high voltage? Then you should build this nifty little device. All of the parts should be available in your area, and depending how much experience you have building electronic equipment, you should be able to bolt it together in a few hours.

As you already know, the ignition coil in your automobile is the modern equivalent of an old time induction coil. It is nothing more than a transformer that converts low voltage into very high voltage. The points in your automobile replace the old fashioned spark gap.

Every time the points open, a pulse of DC current hits the coil like a hammer hits a bell. The ignition coil "rings" like a bell and produces a burst of high voltage. If you "hit" the coil fast enough, the ringing seems to be continuous.

Walt Noon's circuit here replaces the spark gap and the points with a low cost solid state circuit. The circuit takes 110 VAC out of your wall and converts it into a string of DC pulses. The



BUILD A

# 40,000 VOLT INDUCTION COIL

pulses are sent to the terminals of an ignition coil that you can purchase at your local discount store. Off the high voltage terminal comes a solid 40,000 volts that can be used for a variety of experiments including plasma globes and Kirlian photography.

The circuit, based on a 555 timer integrated circuit, provides pulses with adjustable power and frequency. This allows you to easily tune the pulses to the natural resonant frequency of the coil which will significantly increase the output voltage.

You get drawings of the unit, parts list, circuit diagram, photos and assembly instructions for the coil. You are expected to have at least some experience building modern electronic equipment with perf board. You get hints, tips and suggestions on where and how to make circuit modifications.

Probably best of all, Walt includes eight different experiments plus extensive details on Kirlian photography. He'll show you how to modify an inexpensive 35mm camera to take these unusual photographs in color and black and white. You also get six Kirlian photographs taken with the equipment he shows you how to build.

If you want to try your hand at high voltage experiments, this might be just the way for you to "cut your teeth", and it's something you'll be proud to show your friends. And it's a good way to literally shock the pants off them! Get a copy of this. It's unusual. It's well written. And it's inexpensive. You'll like it. 5 1/2 x 8 1/2 booklet 24 pages Cat. no. 844

\$4.95

# LIGHTNING BOLT Generators!

SECRETS OF BUILDING  
ELECTROSTATIC LIGHTNING  
BOLT GENERATORS

by Walt Noon

You can generate high voltage with AC transformer devices like the induction coil and Tesla coil, or you can make lightning bolts with electrostatic DC devices like the Van de Graaff generator. Walt Noon, the frenetic electrical experimenter, shows us some of the things he's discovered in his quest for high voltage.

He'll show you and explain the experiments he has run, the problems he has encountered, his solutions to those problems, ways to build low cost lightning bolt generators, ideas that yet need to be explored and much more.

If you're looking for a heavy, theoretical text or a step-by-step construction manual, then this won't cut it for you. BUT! if you want general instructions that will allow you to build high voltage machines out of what you have on hand, and then improve them, you need this.

Walt covers the electrophorus, his Rotostatic generator, his bizarre "Cat-o-Static" generator, motor speed controls, external Van de Graaff generators, the classic internal Van de Graaff generator, ideas for an extremely high voltage Van de Graaff, inductive electrostatic generators, the Dirod generator, and more.

You'll find the equipment Walt has used to measure the voltages he has generated including his FET electro-

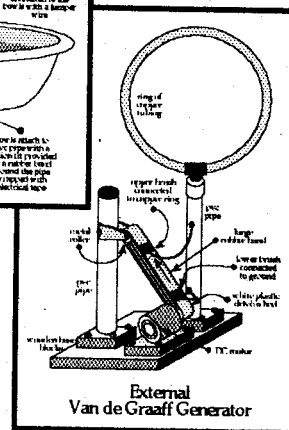
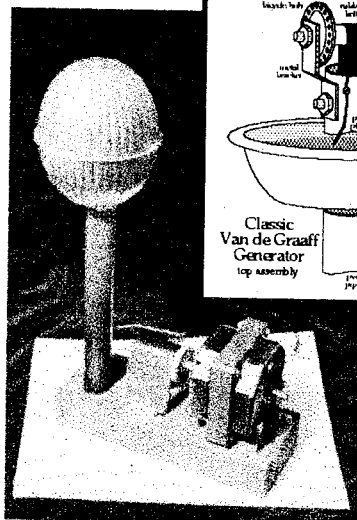
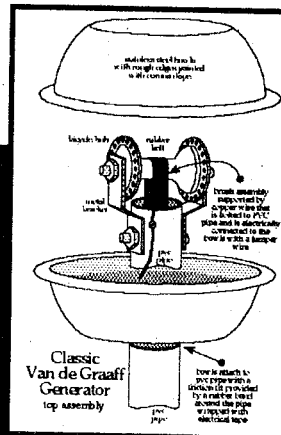
including high voltage  
test equipment,  
experiments, motors  
and more!

scope, neon lamp banks, spark gap volt meters, and more. Walt will show you how to build storage capacitors along with details of his successes and failures.

You get a list of interesting experiments to perform from something as simple as making your hair stand on end to building a "perpetual motion" machine. You'll learn about a variety of ion motors, ion blowers, the Franklin electrostatic motor, the Poggendorff Corona Motor, and even capturing free electrical energy from the atmosphere (Ben Franklin did this, and it almost killed him!) As a bonus Walt will show you how he electroplates metal onto non-conducting forms to build low-loss high voltage terminals!

Walt is not a scientist nor a fantastic author. But he will clearly and humorously explain some of the crazy experiments he's tried and hopes you'll improve on. You get an easy-to-read text loaded with photos and drawings. You'll find that it's really quite easy to get started in electrostatics, and Walt's book

will get you going!  
Excellent book!  
Worth having. Get  
a copy. 5 1/2 x  
8 1/2 paperback  
91 pages  
Cat. no. 20900  
\$8.95



# HIGH VOLTAGE!

Generation, Applications  
& Experiments

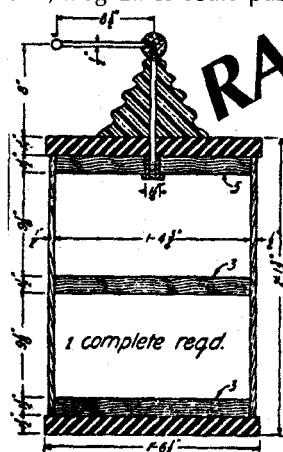


## HIGH FREQUENCY APPARATUS

by Thomas Stanley Curtis  
reprinted by  
Lindsay Publications

By 1916 so much interest in induction, Tesla and Oudin coils had been generated by Electrician & Mechanic, Popular Electricity and Modern Mechanics, and The World's Advances magazines, that Curtis knew his book and high voltage equipment he manufactured would be a hit.

Because of their very nature, magazines could pub-



as much detailed information as he could find. Then he added suggestions for experiments and dozens of illustrations. The result is now a classic book, and original copies are so coveted that they're difficult to find.

You get wall-to-wall how-to on coil construction. Tips on calculating windings, winding coils, making transformers, interrupters and spark gaps, and even the power transformers that drive the spark gap.

If you want to die young, you can build an X-ray apparatus. Use it long enough, and you and everyone in your apartment building will glow in the dark!

Build a grid and see for yourself if high frequency current really does affect plant growth. Build yourself a large coil that produces 50" lightning bolts, give lectures, and make people think you are a genuine made scientist.

Great book. And absolutely MUST HAVE book for the Tesla coil experimenters. Get a copy for your high-voltage library. Quality. Order a copy today. 5 1/2 x 8 1/2 paper 247 pages well illustrated Cat. no. 20030

\$12.95

## CONTENTS

- 1 Alternating Current at Low and High Frequencies
- 2 How the High Frequency Current is Produced
- 3 The High Potential Transformer or Induction Coil
- 4 The Oscillation Transformer
- 5 The Spark Gap
- 6 Oscillation Transformers
- 7 Induction Coil Outfits Operated on Battery Current
- 8 Kicking Coil Apparatus
- 9 One-Half Killowatt Transformer Outfit
- 10 Quenced Gap Apparatus
- 11 Physicians' Portable Apparatus
- 12 Physicians' Office Equipment
- 13 Hot Wire Meter Construction
- 14 Notes for the Beginner in Electro-Therapeutics
- 15 Plant Culture with High Tension Current
- 16 High Frequency Plant Culture
- 17 A Foreword on the Construction of Electrical Apparatus for the Stage
- 18 Construction of Large High Frequency Apparatus
- 19 Large Tesla and Oudin Coils for the Stage
- 20 Construction of a Welding Transformer
- 21 Hints for the Electrical Entertainer
- Appendix Parts and Materials - How Much They Cost and Where to Get Them

## HIGH FREQUENCY APPARATUS

lish only brief articles on these lightning bolt generators. Curtis went the other extreme, and packed "Apparatus" with

# Rare Tesla Articles!

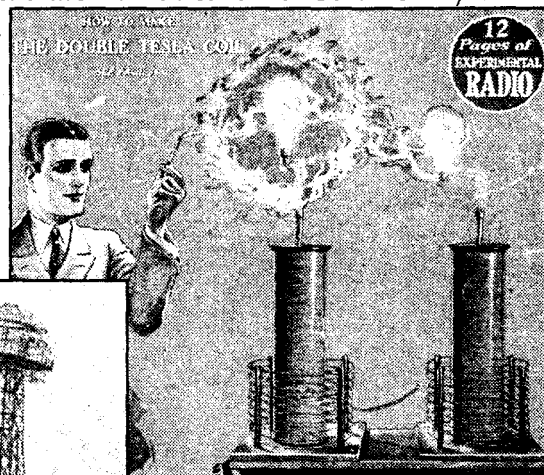
## DOUBLE TESLA-ODUDIN COIL

reprinted by Lindsay Publications

Here, in one small booklet are five fascinating articles reprinted from the "The Experimenter" magazine and its derivatives of the World War I era.

The first article is entitled "Seeing the Unseen" and reveals one experimenter's construction of a double coil high voltage generator that was a cross between a Tesla coil and an Oudin coil. If you want to impress the devil out of someone with a blinding 20" bolt of lightning, this is the machine to build.

A single 2 kilowatt



transformer, spark gap and Leyden jar arrangement drives two sets of primary and secondary coils to generate the high voltage. I don't know where you'll get a 2 kw transformer with a 25,000 secondary, but you may be able to rewind the

secondary of an existing transformer. The rest of the equipment appears to be straight forward. Reprinted from December 1925.

The second article is entitled "Wireless Transmission of Power Now Possible". Here, again, I don't believe it, but supposedly a British genius devised a way to transmit power into the ionosphere using air ionized by a power beam of light. It sounds much like a laser. March 1920.

"Home-Made Geisler Tubes" will show you how to make these neon-like tubes for use with high voltage equipment. You're shown the glass working technique, the hydrogen generator needed, and more. It sounds risky to me, but this is how it's done. Rare information!

After you build your lightning bolt generator, how are you going to brag about it if you don't know what the exact output voltage is? Or more importantly, how are you going to know if the new coil you've just built is actually better than the last? Or if the coil you are adjusting is getting "hotter"? "Testing High Voltages with Spark Gaps" is an article from 1917 that will show you how to build a very simple precision spark gap and use it to measure voltages up to 400,000 volts to within 2% accuracy as claimed by the American Institute of Electrical Engineers. It's a very simple device that when operated according to recommendations and used with supplied tables will reveal the voltage impressed upon it. Excellent article.

And the final article from March 1917 is entitled "U.S. Blows Up Tesla Radio Tower." You'll see photos of Tesla's long island radio tower collapsing from explosives. The unused tower was suspected of being used by spies to transmit information back to Germany.

This is a small booklet, but the information it contains is rare. The original text has been reset to make it much easier to read and all original illustrations have been retained. You may have read some of this in other Tesla books. These are the original articles. Valuable know-how. Great ideas. Order a copy! 5 1/2 x 8 1/2 booklet 23 pages Cat. no. 817

\$4.95



# HIGH VOLTAGE!

Generation, Applications  
& Experiments



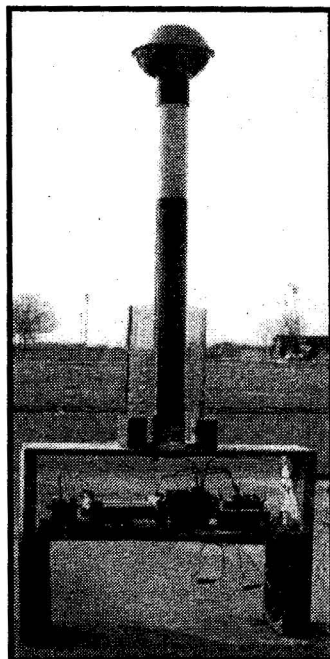
## TESLA COIL HANDBOOK

by Todd A. Pringle

*"Introduction to Theory, Design and Construction of Air-Core Resonating Transformers".*

So much of what you find published on Tesla coil construction is just a rehash of past projects. The accounts are often badly polluted with mistakes, completely wrong rules-of-thumb, and old-wives' tales. Many plans will actually take you down in the wrong path.

Pringle, a graduate electrical



# Tesla Coil Handbook

engineer, has done an excellent job of clearing the air. He'll hit you with theory that is accurate but not overpowering. You'll learn the truth about coils and the problems often faced in their construction – problems that often interfere with optimum op-

ing diagrams, and a couple of photos of a coil with a 40" x 4" secondary coil capable of throwing 28" sparks. The info on this coil alone is worth the price of the book.

## Plans, specs, wiring diagrams, and solid theory!

You get formulas, simple explanations of complex theory, advice from someone who has built a coil and who has far more theoretical background than most of us, plans, and suppliers of parts, and valid coil theory.

You get quality. This isn't the biggest book, the cheapest, or the most professional in appearance, but you get value. This delivers accurate information without the BS so often seen in other Tesla coil publications. I hope this becomes just the first step in a series of Tesla coil books from Pringle. I think you'll like this. Worth having. Order a copy! 8 1/2 x 11 booklet binding 60 pages

Cat. no. 3007

\$9.95



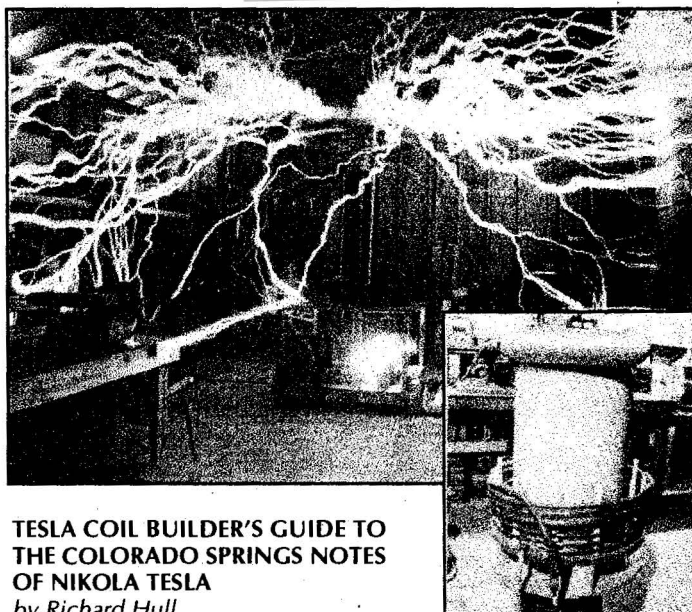
eration of the coil yet are not even suspected by the builder.

You'll learn about 1/4 wave principle, the Ferranti rise, capacitors, power transformers, spark gaps and all the other components of a coil. You'll learn about design parameters and procedures, tuning and operation, sample design, and more.

(If you don't know by now, Tesla coils can be dangerous and downright lethal. The author just for good measure throws in a set of plans for a Jacob's ladder and have some fun should you decide you don't understand enough to safely build a coil.)

And you get plans, specs, wir-

## Guide to Tesla's Notes!



## TESLA COIL BUILDER'S GUIDE TO THE COLORADO SPRINGS NOTES OF NIKOLA TESLA

by Richard Hull

Tesla's notes of his 1899-1900 experiments in Colorado were published in English sixteen years ago in Yugoslavia. Readers had a difficult time understanding them. This book is a guide through those notes, and better yet, a translation. Even without the original notes, much useable information is provided by Hull.

You get loads of detail.

July 24, 1899– "...[Tesla] calculates that the system is oscillating at 164 kHz and then places a 30 inch sphere on the extra coil and records the usual drop in extra coil resonance to 102 kHz with a near tripling of primary capacitance needed to retune the system..." (only part of several large paragraphs)

July 27, 1899– "...Tesla realizes that he can measurably shorten his dwell time and make quenching action much more efficient if he adopts external series spark gaps to help exhaust the arc rather than letting the rotary do all the work...." (much more)

October 3, 1899– "...Tesla's secondary appears to have been slightly altered still. He is now using 17 turns. The first 14 turns are fully double spaced and he then takes two turn triple space or 4 inches apart and the final turn on the insulators is a full 22 1/2 inches above the uppermost turn within the wooden form..." (on and on and on)

You get specifications of the final system design which was used less than fifteen days. Make no mistake about it. This is a BIG system kicking out arcs over thirty one FEET long! You get details on Tesla's Colorado Springs lab and lots more.

You get a list of other publications, newsletters, videos, and a collection of absolutely impressive photos of giant coils being built and operated by the Tesla Coil Builders of Richmond. Good stuff. It will push you into new frontiers of study and research. Get started. Order a copy.

8 1/2 x 11 plastic spiral binding about 120 to 130 pages

Cat. no. 3016

\$19.95

# HIGH VOLTAGE!



Generation, Applications  
& Experiments

## TESLA'S ENGINES A NEW DIMENSION FOR POWER

compiled by  
Jeffrey A Hayes

I don't quite understand what has happened here. This book was called *Boundary Layer Breakthrough*

**TESLA'S ENGINES** *THE BLADELESS TESLA TURBINE*, and was compiled by Jake Possell. The book was expanded, and the name was changed. Even the author's name has changed!? Nevertheless, it's a better book than before, more information with no increase in price.

In 1909 Nikola Tesla applied for a patent on his bladeless steam turbine that could generate ten horsepower per pound of weight. Actually, the patent granted in 1913 was entitled "Fluid Propulsion" because the turbine could also be used as an efficient pump. Today, Tesla fans claim that this turbine is the solution to many of our energy problems, and that the modern world is ignoring one of the greatest inventions ever. You'll have to decide for yourself.

Here you get a collection of articles on the turbine/pump. Chapters include Tesla Gasoline Engine, Sea Power Plant Designed by Tesla, Tesla's New Fluid Propulsion, A Revolution for Electric Motors, New Inventions by Tesla, The Tesla Turbine (articles from *Pop Mechanics*, *Boys Book of New Inventions*, *Prodigal Genius*, others), and more.

You get many photos of applications, reproductions of the original patent plus related patents and much more. You'll get info on the Tesla Engine Builders Association which could open up new avenues of experimentation for you.

This is an offbeat, quality book on an unusual topic. You hear a lot about Tesla's electrical inventions, but little about his machines. Get a copy of this. 5 1/2 x 8 1/2 paperback about 224 pages  
Cat. no. 1307

\$19.95

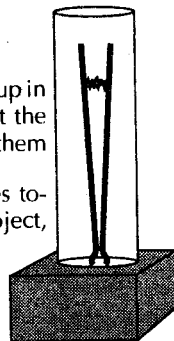
## Plans & Instructions to BUILD THE TRAVELING ELECTRIC ARC (JACOB'S LADDER)

by John F. Nuyen

You've seen them — those two wires sticking up in the air in a "V" shape with a spark that starts at the bottom and slowly travels upward. You've seen them in the "mad scientist" movies.

The ladder is easy to build and quickly goes together. It makes an impressive science fair project, although I'm not sure exactly what scientific use there is for it. Maybe you can use it to terrify your neighbors.

Another typewritten booklet by someone who has done it. Get a copy — for your reference library, if nothing else. 5 1/2 x 8 1/2 booklet 16 pages  
Cat. no. 376



\$4.00

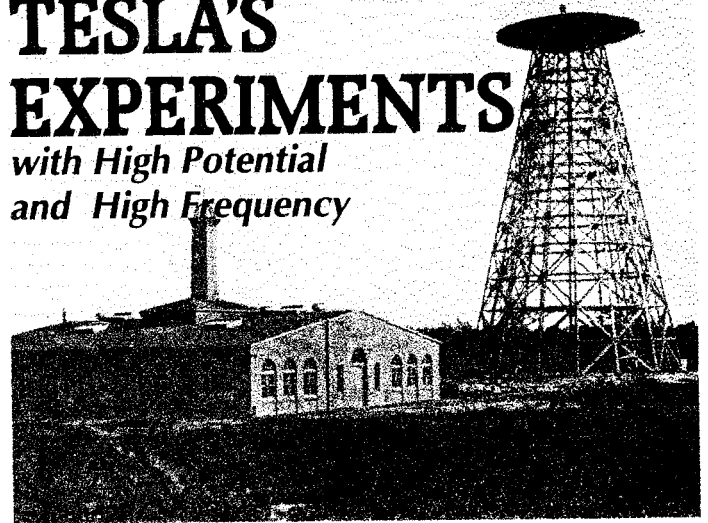
## EXPERIMENTS WITH ALTERNATE CURRENTS OF HIGH POTENTIAL & HIGH FREQUENCY

by Nikola Tesla

"A lecture delivered before the institution of electrical engineers, London, by Nikola Tesla with an appendix by the same author on the transmission of electric energy without wire, reviewing his recent work, and presenting illustrations from the photographs never before published".

Quite a title! Quite a book! There's so much written and published about Tesla (and too much of it is pure garbage), that it is refreshing to have the inventor himself explain his experiments, theories, and plans. It's all here, every page from the original 1904 book —

## TESLA'S EXPERIMENTS with High Potential and High Frequency



**Power transmission without wires: the London Lecture plus a 1904 magazine article on the Colorado Springs experiments! Rare book!**

complete with unusual illustrations showing disruptive discharge coils, improved discharger and magnet, luminous discs, single wire and no wire motor, unusual electric lights for use with the high-frequency AC that is generated by the Tesla coil, and much more.

The last fourteen pages of the book is a reprint of Tesla's article from the March 5, 1904 issue of *"Electrical World and Engineer"* complete with photographs of the experimental apparatus at Colorado Springs and Long Island built to test the transmission of electrical power without wires.

Anyone who studies Tesla, builds his coils, or wants to perfect the inventions that Tesla didn't have time to finish should have a copy of this book. The writings of Tesla himself should be the cornerstone of any Tesla library, and here is your chance to get your own copy of this now-rare book. Interesting reading. Historically important. Get a copy. 5 1/2 x 8 1/2 paperback 170 pages.

Cat. No. 4392

\$9.95

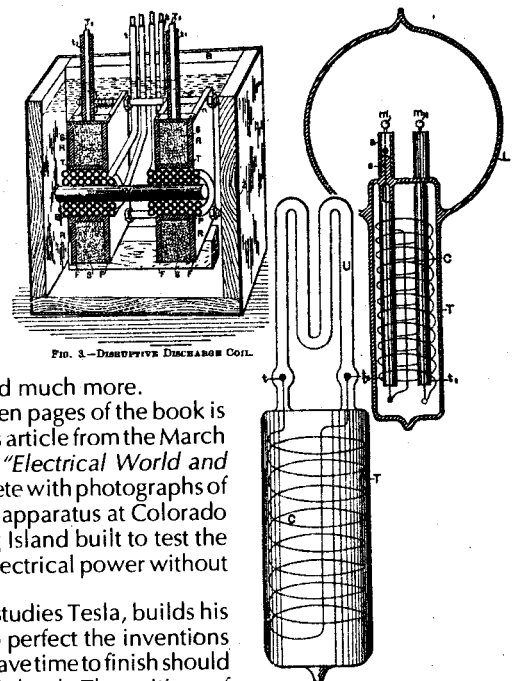
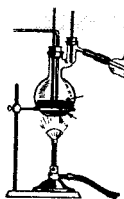


FIG. 3.—DISRUPTIVE DISCHARGE COIL.



# CHEMISTRY

Secret Formulas, Processes,  
& Techniques

## MANUFACTURE OF WHISKEY, BRANDY & CORDIALS

by Irving Hirsch  
reprinted by Lindsay  
Publications Inc

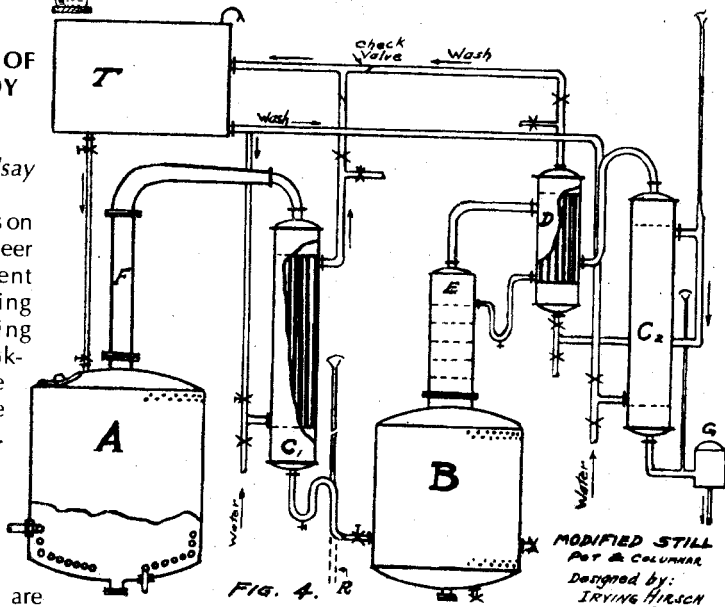
You'll find books on making wine and beer in lots of different places. But finding books on making booze, good, drinkable booze (if there is such a thing...) are almost non-existent. I suspect it has to do with taxes. Making booze is illegal without a government permit. What you get here are the secrets of making booze that you're not supposed to know!

In 1937 the author, a chemical engineer, put together this industrial handbook to teach others how to produce hard stuff. Prohibition had ended, but the Great Depression hadn't. I guess there wasn't much to do but drink...

Chapters include whiskey, treatment of grain, rye whiskey, distillation of liquors, distillery equipment and appliances, manufacture of brandy, of apple-jack, of pear brandy, of slivowitz, of fruit brandy, of rum, of gin, of miscellaneous liquors, of cordials, blending, maturing of spirits [very important], artificial maturing of spirits [trade secrets?], clarifying liquors, water, sugar and syrup, coloring and much more.

We're not talking about small moonshine stills. And dis ain't "white lightnin'" that tastes like liquid fire. This is good stuff. We're dealing with big stills and big processes the way the pro's did it and are probably still doing it. You get diagrams of many different types of stills, condensers, filters and so on. You get recipes for everything from gin to creme de cocoa. You get useful tips on blending scotch whiskeys, problems that occur if whiskey stays in bond too long, problems with sweating casks and much more.

I'll never make my own booze. I'm too lazy, I guess. Nevertheless I found this book



## Manufacture of Whiskey, Brandy & Cordials

interesting

because this kind of information that is never published. It's passed on through apprenticeships. The text is typewritten, and the illustrations are industrial. I get the overpowering feeling that this is information that the government and especially the distilling industry wants to keep to itself.

Excellent, rare information. An interesting book on something that people have enjoyed and gotten into trouble with

since the beginning of time.

Get a copy and enjoy it. But don't get into trouble. Order a copy today! 5 1/2 x 8 1/2 paperback 183 pages

Cat. no. 20935

\$9.95

## PRACTICAL DISTILLER

by Leonard Monzert

reprinted by Lindsay Publications

Make moonshine! Poison yourself! Go blind!

From 1889 comes this little gem of a book showing how to distill "Brandy, Gin, Rum, Whiskey, Arrac, Poteen, etc.", all of which owe their respective intoxicating properties to the amount of alcohol which they contain."

While other books show you how to make fuel alcohol, this one will show you the

## PRACTICAL DISTILLER

equipment you need to make booze. Included are discussions on the still and appurtenances, the farmer's still, directions for erecting a distillery, running a charge, the doubler, distillation of liquors, rectifying or leaching, alcohol refining, distillation of volatile oils, extracts, the water bath still, essences and liqueurs, blending and compounding and more.

Making booze without a permit is

illegal. The government wants its taxes. You can use the equipment to make fuel alcohol for your car, perfume, and even vinegar.

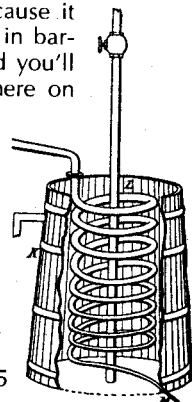
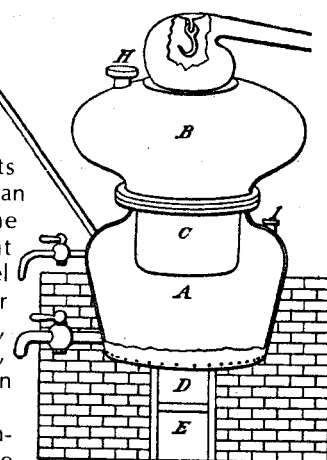
If you intend to make booze, you're on your own. Moonshine stills were made with galvanized iron, old radiators, and other nasty metal that could poison you. Besides, "white lightning" tastes like lightning because it isn't aged or mellowed in barrels. It's nasty stuff. And you'll find little information here on turning out really good whiskey. This is a book on equipment, not gourmet cooking.

A great curiosity. Rare information. I won't tell the WCTU or BATF you're ordering copy.

5 1/2 x 8 1/2 paperback 156 pages

Cat. no. 4589

\$8.95

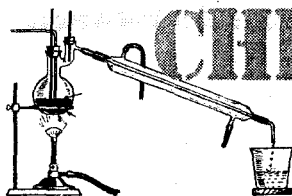


**SECRETS OF  
MAKING BOOZE**  
you're not supposed to know!

Vodka • Gin  
Brandy • Rum  
Scotch • Bourbon  
and more!

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# CHEMISTRY

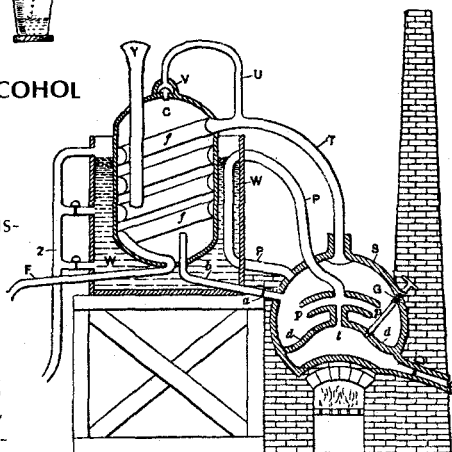
Secret Formulas, Processes,  
& Techniques

## DISTILLATION OF ALCOHOL AND DE-NATURING

by F. B. Wright  
reprinted by

Lindsay Publications

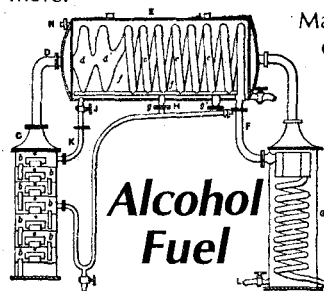
You can make industrial alcohol from anything fermentable. Here is one of the very best books you'll ever find on the nitty-gritty details of fermenting grain, fruit, potatoes, and more into a valuable fuel.



## JUNGLE JUICE!

Chapters include alcohol, its forms and sources; preparation of mashes and fermentation; distilling apparatus; modern distilling apparatus; rectification; malting; alcohol from potatoes; alcohol from grain, corn, wheat, rice, and other cereals; alcohol from beets; alcohol from molasses and sugar cane; alcoholometry; distilling plants, their general arrangement and equipment; denatured alcohol, and denaturing formulae; denaturing regulations in the United States (now no doubt obsolete).

You get many, many illustrations of stills, and their equipment. You also get drawings of a potato steamer and crusher, a storage cellar for beets, a roll press for beets, a molasses fermenting house and more.



Mashing is a process of natural enzyme chemistry that converts common starch into fermentable sugars. The process is touchy because it must be carried out at precise temperatures. Here, you get recipes and the precise details on mashing.

You'll also get formulas for denaturing alcohol, that is, making it undrinkable so that you can sell it and use it legally. Obviously

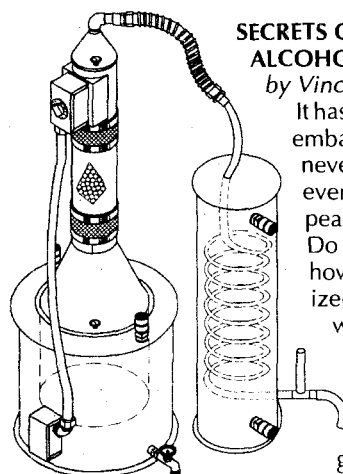
this is a top rate book for the manufacture of fuel in small, medium, or outrageously big lots.

A lot of this info is pure moonshine know-how. What you don't get however, are details on making drinkable alcohol. Booze tastes good because it has been fermented from special, often secret, recipes, distilled in unique stills in a unique way, and has been aged in wood. The raw output from these methods could be drunk, but probably won't taste very good, and the fusel oils could give you a very nasty hangover. This is fuel, and engines aren't too fussy about the booze they consume. If your goal is to make whiskey, you're on your own. It's against the law.

Great book! Originally copyrighted in 1907. Loaded with detailed how-to. Tremendous reference and source book for survivalists, farmers, Snuffy-Smith-types, chemistry buffs, and the curious. Good stuff. Get a copy. 5 1/2 x 8 1/2 paperback 271 pages

Cat. no. 21427

\$14.95



## SECRETS OF BUILDING AN ALCOHOL PRODUCING STILL

by Vince Gingery

It has been a long time since the Arab oil embargo created a shortage of gasoline never before seen in this country. And even after the gasoline lines disappeared, the price of gas skyrocketed. Do you remember? Do you remember how people panicked when they realized they had nothing to feed that four wheeled gas hog that got them to work each day?

Do you remember all the red-neck boasts about how "Bah Gawd, I'm gonna bury a 200 gallon tank in the ground and fill it with gas..." as if somehow that would solve

the problem? An intelligent person knows that hoarding is not a solution to shortages. An intelligent person finds alternative solutions, and this machine is just such a solution.

## Make Alcohol!

### Powerful homemade liquid fuel!

Instead of trying to stockpile gasoline, you can make your own substitute out of sugar, corn, potatoes, the ol' lady's underwear (well... maybe not that), or just about anything you can ferment into alcohol. This still will remove the water, creating almost pure alcohol (close to 200 proof) that you can burn in just about any type of engine.

Here Vince will teach you how to take common plumbing parts, copper sheeting, and standard electrical parts and build a 6 gallon capacity still. He'll show you how to malt, mash, and ferment corn into fuel and turn it into fuel. And Vince will show you how easy it is to get a license and do all this with the blessing of authorities.

The still heats the wash with a water jacket in which is immersed a 120 volt water heater element. Temperature is controlled with a continuous thermostat. Eventually vapors boil through the rectifying column to the condenser. If you carefully maintain the precise temperature, you'll get almost pure alcohol.

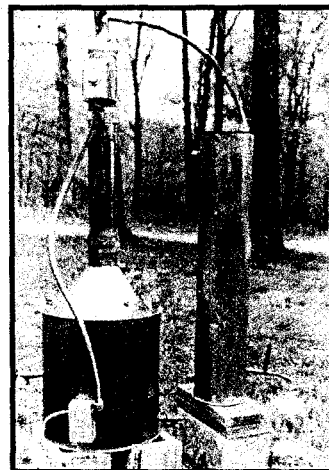
The fuel you produce is not going to be cheaper than gasoline unless you have a low cost source of fermentables and want to make a version you can fire with scrap wood or coal. But remember. If you can't buy gasoline at any price, even alcohol at three or four dollars a gallon is a bargain. And if you use it to power a small motor scooter that gets 200 miles to the gallon, you'll be getting around when everyone else is walking or bicycling. What you'll make here is a device that can turn common table sugar into a substitute for gasoline the supply of which no one can control but you.

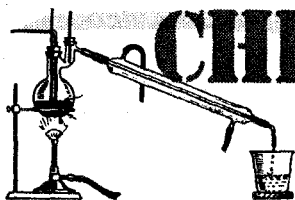
I'm sure you could use the still to make whiskey and brandy. But I'll tell you up front, that's against the law whether you sell it or not. The Feds want their taxes. If you're going to make moonshine, don't tell me about it.

Great book on a great machine! Be independent. Thumb your nose at the corner gas station. Build a still, and make fuel. Order a copy. 8 1/2 x 11 paperback 76 pages

Cat no. 6060

\$11.95





# CHEMISTRY

Secret Formulas, Processes,  
& Techniques

## VOLUME 1 - ACCIDENTS AND EMERGENCIES, AGRICULTURE, ALLOYS & AMALGAMS

You get nineteen pages on dealing with accidents, poisonings, drownings, and all the "routine" problems of life. I'm not sure I would want to trust their recommendations.

The agriculture section looks quite useful, especially if you're looking to homestead. Make grafting wax, growing mushrooms in an old chest of drawers, make butter and its substitutes, a couple of simple cheeses, and fertilizers for the garden. You get details on milk and its substitutes, preservation and the like. Learn about chickens, their feed, and even remedies for diseases. You get lots of formulas for keeping your livestock healthy including cattle, horses, dogs, and hogs. Finally you get a section on eradicating weeds.

Alloys & Amalgams will, first, provide you with general information about alloys and the metals that go into them. Then you get details on a wide variety of alloys including aluminum bronze, bismuth bronze, copper alloys, German silver, bronze, gun metal, phosphor bronze, speculum metal, bearing metals, brass, gold, manganese, platinum, and silver metals, white metal and more. Amalgams include those using barium, cadmium, copper, gold, silver and lots more. Interesting stuff. More great info. 5 1/2 x 8 1/2 paperback 128 pages  
Cat. no. 21516 \$7.95

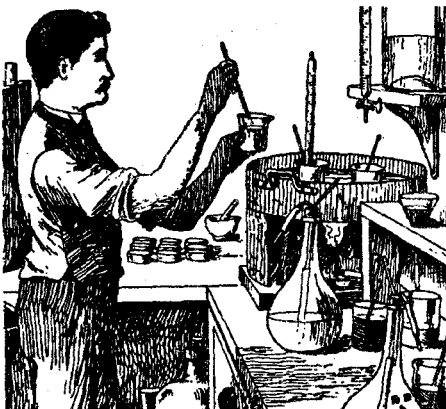
## VOLUME 2 - ART & ARTIST'S MATERIALS, BEVERAGES

You get hints, tips and formulas for all kinds of things like ways of bronzing, preparing canvas for painting, mixing pigments, making copying paper, drafting, fixing drawings, making wax flowers, bronze drawing on glass, gilding on granite, backing maps with muslin, making modeling clays and compounds, making molds for metal casting, papier mache (including industrial uses), making real parchment papers, picture framing, plaster casting, and much more.

Then you get all kinds of formulas and recipes for various mineral waters, and page after page of flavorings, extracts, and syrups for making soda pop. Make dandelion root beer, hop beer, egg drinks, Frappes, ginger ales, and more. Then you get details on grape juice, ice cream beverages, malted milk, phosphates, and punches. Hot beverages include a beef drink, chicken cream(?), clams(?), coffee extract and more. Try lemonade, cola, tomato juice, cider and much more. Alcoholic beverages include formulas for all types of liqueurs from honest-to-good-

ness, illegal absinthe to Berlin bitters and wild cherry. You get page after page on making brandy and other liqueurs and the mixing of drinks. And then you get page after page of wine know how.

More formulas and recipes than you'll ever have time to try. Get a copy. 5 1/2 x 8 1/2 paperback 144 pages  
Cat. no. 21524 \$7.95



## VOLUME 3 - CEMENTS, GLUES, PASTE, CLEANSING, BLEACHING

You can make adhesives for aquariums, barrels, buildings, dental work, glass, for attaching metal to glass or leather, and more. You can make acid proof glues, casein glues, mucilage, putty and much more. You can whip up brewer's cement for coating the inside of barrels, or concoct a glue for setting bristles in paint brushes, or even whip up blood cement for pointing bricks (yes, it contains bullock's blood!). You'll find very unusual old-time sealants and adhesives that worked very well.

Then you get methods of removing acid stains from clothes, of bleaching beeswax, of cleaning brass and copper, of cleaning clocks, carriages, and casks. You can clean feathers, your bird (??), felt hats, firearms, goatskin rugs, iron, steel, and more. You get formulas for preserving ropes, details on rouge for polishing, for polishing nickel, and even for cleaning wicker baskets and violins ('course, cleaning it ain't gonna make it sound any better...)

Unusual stuff to say the least. 5 1/2 x 8 1/2 paperback 161 pages  
Cat. no. 21478 \$8.95

## VOLUME 4 - Plating & Coloring Metal

You'll learn about coloring metals like aluminum, copper, brass, iron and steel and more. You can bronze or frost brass, blue steel or turn it bright black, gild silver or turn it red.

In the section on dyeing you can make

# The Scientific American CYCLOPEDIA OF FORMULAS

**A total of 15,000 Formulas!**

In 1912 Munn & Co. published a enormous books of formulas for almost every imaginable concoction a person might need. Editor Albert A. Hopkins, query editor of the *Scientific American*, compiled this incredible collection 15,000 formulas drawing on, in part, the 28th edition of *Scientific American Cyclopedic of Receipts, Notes and Queries*. The original copyrights run from 1891 through 1910, and the material they cover is brilliant.

I debated for quite some time about reprinting this book. To reprint almost 1100 pages in a single volume would be astronomically expensive and would require a hefty price tag. I don't think you want to put a second mortgage on your house to buy a single book.

The solution was to break the main book into nine volumes. You can order a complete set at a discount price, or buy just the topics you're interested in. Breaking it into pieces makes it easier for everyone to get access to this information.

### SET OF ALL NINE VOLUMES

Special price for a set of all nine volumes.  
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### SPECIAL VOLUME 8 PRICE

If you have purchased the other eight volumes of the *Cyclopedia of Formulas* as they have appeared, you can purchase volume eight at this special price to complete your set. (No cheating, though! Before we will send you volume eight at this price, however, we will check our computer records to see that all other eight have been ordered.)

No. 941 \$1.00

Easter egg dyes, dye feathers, hats, gloves, gutta percha, horsehair, straw and more with dozens of formulas.

Learn to electroplate. You get the details on cleaning, pickling, polishing and actual plating. You get many formulas for plating aluminum onto copper, putting down brass and bronze on base metals, plating copper and gold, depositing iron, nickel, platinum, palladium, and so on.

Learn to blow glass, cut, drill, etch, frost, gild, and grind glass. Excellent info on making mirrors. More.

Good stuff. 5 1/2 x 8 1/2 paperback 76 pages  
Cat. no. 21338 \$5.95



# CHEMISTRY

Secret Formulas, Processes,  
& Techniques

## VOLUME 5 - METAL, CANDY, LAPIDARY, LUBRICANTS, ICE CREAM, MORE!

You start out with heat treatment of metals, annealing, brazing, casehardening, hardening, tempering and welding. There are recipes and formulas for hardening iron with the prussiate of potash process, hardening copper, directions for making drills for glass from steel wire, tempering and much, much more.

You can make antiseptic wash for washing your bird, formulate bird seed, waterproof cellars, compound fumigants, color electric light bulbs, clean and refinish wooden floors, hang wallpaper and much more.

You get formulas for making a variety of chicle-based chewing gums, candies such as gum drops, rose almonds, Italian cream caramels, and more. You get recipes for several ice cream bases and a number of flavoring additives including unusual ones such as black currant, huckleberry, and pomegranate. You'll learn to make fruit ice, sherbets, and frozen fruits.

Then you can make poisons! You can with a chapter on insecticides and extermination of vermin: domestic, agricultural, and horticultural.

Learn "artificing in hard minerals, ivory, bone, horn, shell, coral, jet, meerschaum, soft minerals, etc." In other words, you can make jewelry and other pretty things.

Next, you'll learn how to tan leather, preserve it, and polish it by using a variety of useful formulas.

Finally, you'll learn to formulate lubricants. You can grease up your buggy wheels, make sewing machine oil, make palm oil grease for wooden machinery, or use paraffine to make piston-rod grease. And lots more.

More useful formulas. 5 1/2 x 8 1/2 paperback 113 pages  
Cat. no. 21435 \$7.95

## VOLUME 6 - PAINTS, VARNISH, PHOTOGRAPHY

These formulas cover the areas of bronzing, driers, enamel paints, fillers, japans and japanning, lacquers and lacquering, paints, size, stains, varnishes, and whitewash. Make your own lacquer paint, blackboard paint, boiler paint, engine paint, iron paint, rubber paint, silicate paint and more. You can make size, stains, balloon paint, coffin varnish, violin varnish and more.

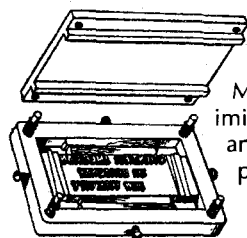
Learn how to make collodion wet-plates like Brady used to photograph Lincoln and Civil War. You get formulas for developers, hardeners, fixers, intensifiers, varnishes and more. You get formulas and very brief in-

structions for making prints using plain salted paper, arrowroot papers, albumen paper, and for making prints on cloth, wood, ivory, etc. You get formulas for making your own gelatin emulsions. You'll find info on cyanotype processes, platinum, carbon, Ozobrome, and many unusual processes including lead printing, oxalate silver printing papers, citrate paper, uranium process, and more. One section covers lantern slides, color photography, photoengraving, and even old-time flash-light powder (I don't want to be around when you set that off!).

Rare information. Some of it I've seen nowhere else. Grab it! 5 1/2 x 8 1/2 paperback 112 pages  
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## VOLUME 7 - PRESERVING, RUBBER, SOAP, CANDLES, SOLDERING, MORE

Can and preserve fruit. Recipes for blueberries, cherries, crab apples, currants, grapes and more. Make jam and jelly of all types. Make brandied fruits, pickles, catsups. (Anchovy catsup, chutney mango, pickled cherries, and more!) Pickle melons, bottle horseradish, can vegetables for the off season. Preserve eggs, meat, smoke eels and salmon. Make many kinds of mustard, prepares spices and seasonings, sauces, salad dressings and puddings. Make and clarify vinegar — many formulas. Make baking powder, malted food for infants, yeast, more.



Get the details on rubber, gutta percha and celluloid. Make billiard balls(??), imitation tortoiseshell, artificial rubber, rubber preservatives, vulcanizing and much more.

Formulas for candles. Make one of dozens of different soaps from castile to medicinal and beyond.

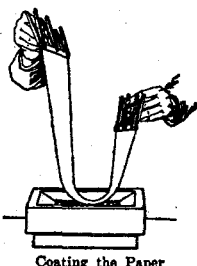
Get alloy formulas for all types of solders. Hints and tips.

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## NEW VOLUME 8!

VOLUME 8 - TOILET PREPARATIONS, WATER AND FIREPROOFING, WRITING MATERIALS AND MISCELLANEOUS FORMULAS

Learn how to make all kinds of old time cosmetics and remedies. Learn to formulate emollient baths, cures for corns, chapped



Coating the Paper

skin, a variety of cold creams containing all kinds of compounds, depilatories, bleaches and dyes for hair, lip balm, a Listerine-like mouth wash, and more. You'll probably want to do more research before you use some of these mixtures, but I'll bet you find that many modern skin creams guaranteed to keep you wrinkle-free are no better than these formulas.

Learn to extract and prepare perfumes and colognes from a variety of plants. Make potpourri, smelling salts, pomades, deodorants, rouge, shaving cream, and compounds to remove tattoos. Compound theatrical paints, toothpowders and pastes, and even a "wrinkle remover."

Learn how to fireproof tent canvas, roofing, paper and ink, fabrics, wood and much more. Learn to make "hand grenade" fire extinguishers, and more. Waterproof canvas, and other fabrics, floors, leather, paper, umbrellas, wood and more.

You can make crayons, a hektograph duplicating machine, blotting paper, aniline inks, inks of various colors, inks for glass, indelible ink, India ink, mimeograph ink, stamp pad ink, and much more. Make carbon paper, iridescent paper, packing paper, and more. Learn the secrets of making graphite leads for pencils, sealing wax, and artificial slate.

And the final miscellaneous section will give you formulas not found elsewhere on extracting albumen, malting grain, making nitric acid, bichromate batteries, benzine, and billiard ball material. There are details on enamel colors, embalming fluids, etching metal, fish bait, foundry facing sand, kerosene, lard, matches, mica, paraffine, plaster, fireworks, printing roller compositions, Seidlitz, burnt steel, taxidermy and much, much more. Great stuff. 5 1/2 x 8 1/2 paperback 141 pages  
No. 21575 \$7.95

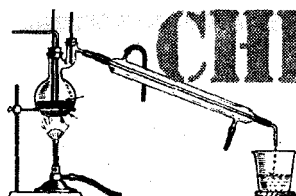
## VOLUME 9 - LABORATORY DETAILS

You get explanations, and in some cases illustrations, of laboratory operations which are broken into six categories: comminution, solution and extraction, vaporization, precipitation and separation, heat treatment of solids, and specific gravity. These are brief explanations of manipulations needed to compound the thousands of formulas in the preceding eight volumes.

You'll learn about maceration, expression, infusion, evaporating dishes, drying closets, distillation, precipitation, filtration, and much, much more. Unlike the rest of the Cyclopaedia, this section is well illustrated and that makes it even more fun to read.

You also get a section on essential weights, measures and equivalents as well as the master index to all of the volumes. Excellent, practical lab know-how. Interesting reading. Something to have. 5 1/2 x 8 1/2 paperback 100 pages

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# CHEMISTRY

Secret Formulas, Processes,  
& Techniques

## CHEMICAL CROSS REFERENCE!

*Translate Obsolete Old-Fashioned Chemical Names*

### LINDSAY'S CHEMICAL CROSS REFERENCE

by Lindsay Publications Inc

If you haven't run into the problem yet, you will. You'll be reading some old chemical formula calling for mirbane oil, salt of satum, or liver of sulphur. A quick check of this handy list of chemical terms would tell you that you need nitrobenzene, lead acetate, or potassium sulphide.

What we did was enter into our computer two thousand chemical equivalents gleaned from a variety of chemistry textbooks, industrial references, and formularies in our reference library dating back to the early

1800's. The computer merged and sorted the lists into alphabetical order. The result is a chemical cross reference.

We have kept unusual and probably incorrect spellings. We have made no attempt to verify that the definitions are correct. What we have done is provide you with one master list of the best equivalents we could find. We've already found it useful, and you will too. Get a copy for your reference library. 5 1/2 x 8 1/2 paperback 44 pages

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\$5.95

## MAKE MIRRORS

### HOW TO MAKE MIRRORS

reprinted by Lindsay Publications

"The Brashear, rochelle salt, and formaldehyde formulas are given, together with a detailed discussion of the precautions which should be taken to avoid danger and the technique which has been found to yield the most satisfactory results at the bureau. Methods are also given for the production of reflecting films on glass by the chemical deposition of copper, platinum, or lead sulphide, by cathode sputtering, and by the condensation of vaporized metals."

Be warned that should you mix some of the chemical too strong, there may be a dangerous explosion. But the manual goes into great detail about eliminating the dangers,

and the practice of silvering. It is written for the beginner and leaves very little to the imagination. A reprint of a 1931 booklet issued by the Bureau of Standards. Excellent! 5 1/2 x 8 1/2 booklet. 15 pages 2 drawings.

Cat. No. 885

\$3.00

### CRYSTALS AND CRYSTAL GROWING

by Holden & Morrison

Crystals exist in everything from your TV set to the castings you pour. Learn about what crystals are and how they grow. Learn how to grow your own, easily and inexpensively.

Chapters include: solids and crystals, solutions, solubility diagrams, two methods for growing crystals, building blocks for crystals, twelve recipes, symmetry, arrangements of atoms, cleaving and gliding crystals, melting and

transforming, piezoelectric effect, optical experiments and more. You also get sources of supplies, making a spectroscope, suggestions for research, more books and articles.

Excellent book. Easy to read and understand. It was first published in 1960, so you know it's a good book. Get a copy. A great science fair project. 5x8 paperback 318 pages

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## GROW CRYSTALS!

# CONTENTS

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• **Division II** — Crude materials and products of chemical industry — Carbonate of Potassa; Saltpeter, Nitrate of Potassa; Nitric acid; Technology of the Explosive Compounds — gunpowder, and the chemistry of fireworks or pyrotechny; Nitroglycerine; Gun-cotton; Common salt; Manufacture of Soda — native soda; Soda from plants or soda-ash; Soda Prepared by Chemical Processes; Preparation of Iodine and Bromine; Sulphur; Sulphurous and Hyposulphurous Acid; Manufacture of Sulphuric Acid; Sulphide of Carbon; Hydrochloric Acid and Glauber's Salt, or Sulphate of Soda; Bleaching Powder and hypochlorites; alkalimetry; Ammonia and ammoniacal salts; Soap making; Boric or boracic acid, and borax; Production of alum, sulphates of alumina, and aluminates; Ultramarine

• **Division III** — Technology of Glass, Ceramic Ware, Gypsum, Lime & Mortar Glass manufacture; Ceramic or earthenware manufacture including hard porcelain, tender porcelain, stoneware, Fayence ware, common pottery, brick and tile making; Lime and lime-burning; Mortar including common or air-setting mortar and hydraulic mortar; gypsum and its preparation

• **Division IV** — Vegetable Fibers and Their Technical Application — Hemp; Cotton; Paper making — hand paper, machine paper, pasteboard and other paper; Starch; Sugar manufacture; Cane Sugar; Beet-root; sugar; Grape sugar; Fermentation; Wine-making; Beer-brewing; preparation or distillation of spirits — preparation of vinous mash and distillation of the vinous mash; Bread baking; Manufacture of vinegar; Preservation of wood; Tobacco; Technology of essential oils and resins; Cements, lutes and putty

• **Division V** — Animal Substances and Their Industrial Application — Woollen industry; Silk; Tanning; Glue Boiling; Manufacture of Phosphorus; Requisites for producing fire; Animal charcoal; Milk; Meat

• **Division VI** — Dyeing and Calico Printing — Aniline colours; Carboic Acid colours; Naphthalene pigments; Anthracen pigments; Pigments from Chinchonine; Red Pigments occurring in plants and animals; Blue dye materials; Yellow dyes; Bleaching; Dyeing of spun yarn and woven textile fabrics; Printing of woven fabrics

• **Division VII** — Materials and Apparatus for Producing Artificial Light — Artificial light from candles; Illumination by means of lamps; Gas; Paraffin and solar or petroleum oils; petroleum

• **Division VIII** — Fuel and Heating Apparatus — Fuel; Wood; Peat; Carbonized peat; Brown-coal; Pit coal or coal; Petroleum as fuel; coke; artificial fuel; gaseous fuel; heating apparatus; heating dwelling houses; boiler heating and consumption of smoke



# CHEMICAL MANUFACTURING SECRETS

## 1872 HANDBOOK! Everything from pig iron and nitric acid to bread and wine!

### HANDBOOK OF CHEMICAL TECHNOLOGY 1872

by Rudolf Wagner

translated by William Crookes

reprinted by Lindsay Publications

In the 1872 German chemists were world famous, and Wagner's Handbook was the master reference for chemists the world over. This translation of the eighth German edition can be yours for much less than an original copy should you be able to find one.

And what a book it is!

You'll early and/or simple ways of making chemicals, refining metal, formulating glue, paper, dyes or just about anything else chemical in nature. I have never seen such a comprehensive collection of incredible technological detail in a single volume anywhere else.

Want to refine iron ore into steel? Want to make sulphuric acid? And use it to make nitric acid? And use it to make explosives? Care to brew beer? How about a batch of whiskey? A loaf of bread? And on, and on, and on. You get a whole encyclopedia in a single volume — 745 pages of small type with 336 illustrations mostly of manufacturing apparatus.

This is not really a cookbook. You won't find step-by-step instructions. But you will find more detail on a wider variety of basic essential processes (many of them made obsolete by more complicated processes) than in any other volume. For instance, if you're investigating the tanning of hides, making illuminating gas, charcoal, soap, or anything else, you'll find that this single volume can provide more information in less time than a search through most libraries for a month of Sundays.

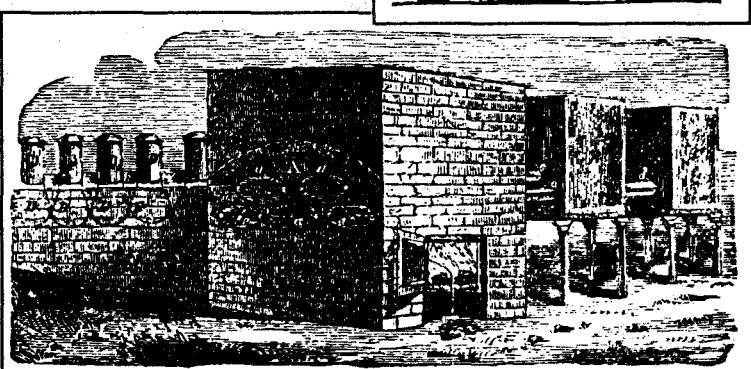
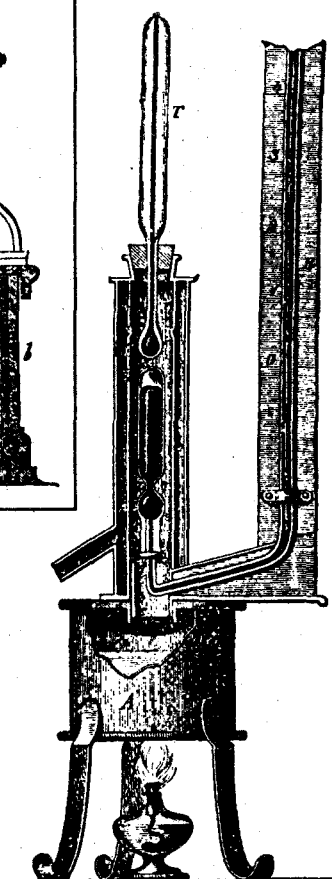
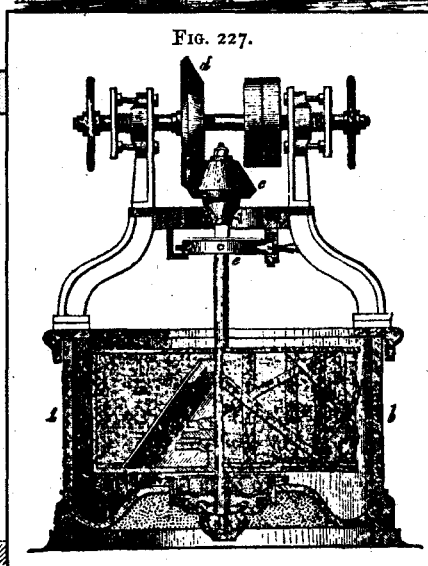
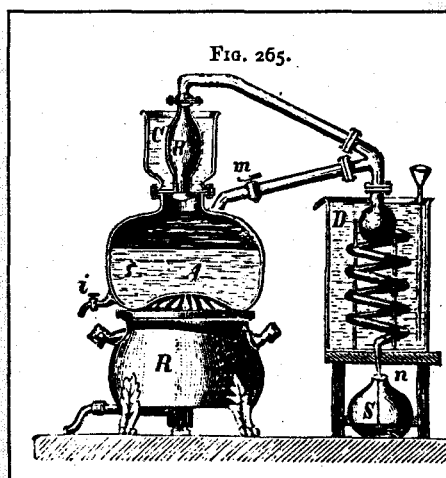
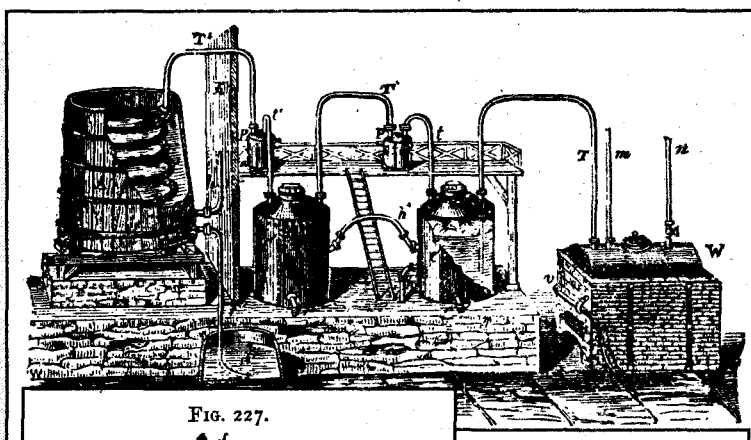
Yes, this is an expensive volume, but you actually get more than what you pay for. This is quality. Today we have sophisticated, hi-tech processes that are closely guarded industrial secrets. Here you learn how it was done before large corporations and PhD chemists took over production. Be warned, though. This is old world thinking. You run the risk of poisoning yourself. These methods can be and probably are dangerous.

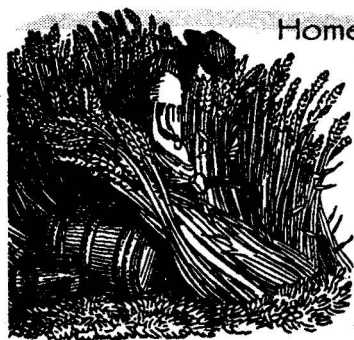
This incredible classic text will definitely fill a void in your reference library. I've never seen anything like it. And it's almost a sure thing you haven't either. It's expensive, but it's worth every penny and then some. Order a copy. You won't be disappointed. 5 1/2 x 8 1/2 hardcover 745 pages

332 illustrations

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Homesteading, Survival, Alternate Energy, and more....

## Make Beautiful Ceramic Tile!

### HANDMADE TILES

by Frank Giorgini

The walls of Babylon were decorated with beautifully glazed bricks and tile decoration. Many glamorous homes have floors and walls decorated with handmade ceramic tile. It is truly a high art form, and it's a very interesting technical process.

"Written for the beginning tile maker, the accomplished artist, and the tile lover alike, this comprehensive, easy-to-understand, and loving treatment of the art of handmade tiles provides a wealth of practical information, a touch of history, and a stunning array of color photography. Included are more than eighty 'how-to' photographs of tile-making steps, techniques and tools, as well as dozens of color photos of work by some of today's best tile artists.

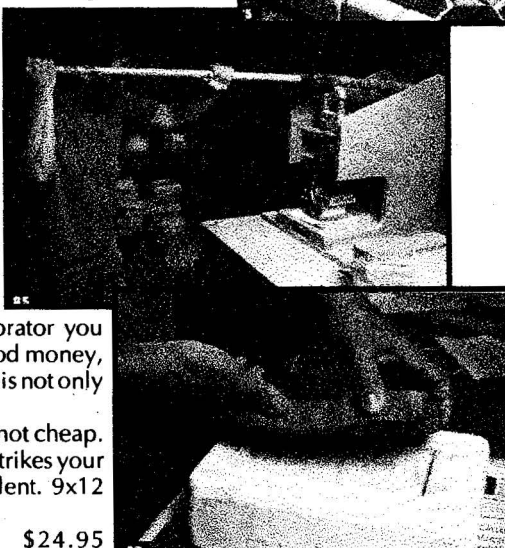
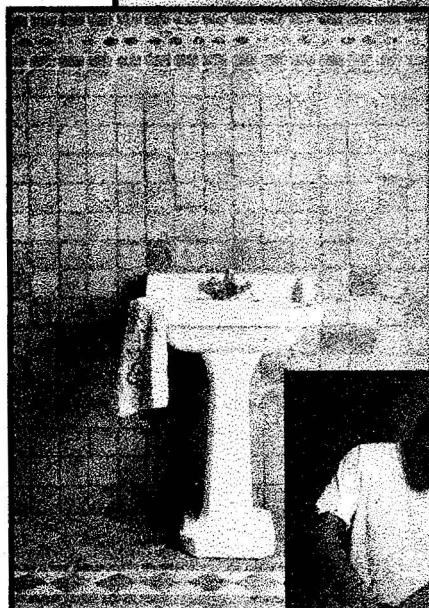
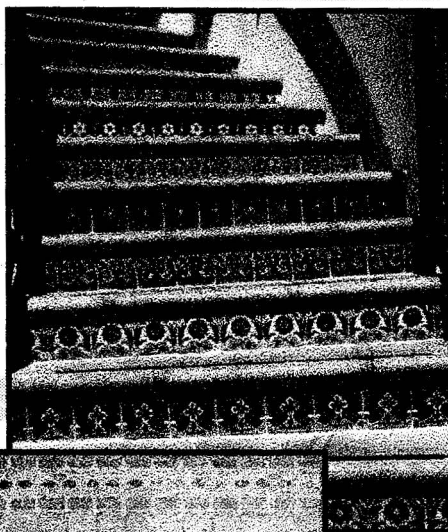
The author gently guides the reader through setting up a workshop, selecting materials, purchasing and making tools and equipment, and designing, fabricating, firing, decorating, and installing tiles. Everything that the beginner needs to know is considered—making relief tiles, underglaze and glaze decoration, slip trailing, inlay, sgraffiato, shellac resist, and impressing, as well as mosaics and the tile installation process...."

This fascinating full-color book reveals a true art form, one of incredible beauty. But the entrepreneur in me keeps telling me that this is a money-maker. With today's interest in home and home-improvement I can't help but think that with just a little artistic talent (or an ability to steal ideas) and some connections with a contractor or interior decorator you could mass-produce clay tiles, make good money, and have fun doing it. In other words, this is not only looks like fun, it looks lucrative, too.

Expensive book, but color printing is not cheap. Excellent value. Unusual content. If this strikes your fancy, get it now while you can. Excellent. 9x12 hardcover 144 pages

Cat. no. 6071

\$24.95



## HOMESTEADING SKILLS!

BACK TO BASICS

### How to Learn and Enjoy Traditional American Skills by Reader's Digest

You get a big, beautifully illustrated hardcover book that will show you how to do almost everything a homesteader needs to know.

Topics include: buying country property, planning your home, preparing the site, converting trees into lumber, building a log cabin, building with adobe, building a stone house, raising a barn, developing a water supply, fences, heating with wood, water-power, wind power, solar energy, the kitchen garden, fruits and nuts, grains and grasses, beekeeping, fish farming, livestock, preserving produce, making dairy products, maple sugaring, homemade beverages, baking bread, cooking with wood, spinning and weaving, hooked rags, braided rugs, rope and twine, tanning and leatherwork, wood-working, broom making, scrimshaw, metalworking, stenciling, soapmaking, candlemaking, basketry, making a mountain dulcimer, and much more.

You'll be impressed by easy-to-read text and quality illustrations throughout. Obviously each chapter could be a book in itself, so information is limited. But it's enough to get you started. At the end of each section you'll find a list of quality reference books that will help you push on.

Lots of things to try. Just plain fun to read even if you never try a thing! A bit expensive, but it delivers. If you're thinking about being more independent, this is a must-have book. Recommended. 11 x 8 1/2 hardcover 456 pages

Cat. no. 207

\$26.00

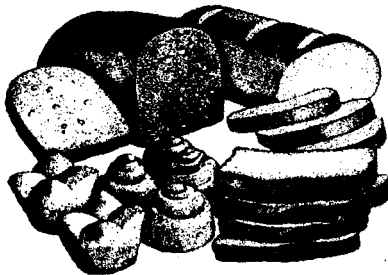


## BAKE SOUR- DOUGH!

### BAKING WITH SOURDOUGH

Learn how to make a sourdough starter and use it to make a variety of delicious breads and biscuits like the gold rush prospectors did. This "Back-to-the-Land" bulletin published by Garden Way provides you with hints, tips, and recipes. 5 1/2 x 8 1/2 booklet 32 pages

Cat. no. 2006 \$2.95



## Grow Food in Chemicals???

### HOME HYDROPONICS AND HOW TO DO IT!

by Lem Jones

People are SO ignorant! If you tell them that it's possible to grow plants in chemicals, they immediately think of PCB's, heavy metals, even the ozone layer. They're horrified! They never stop to think that every plant and animal is composed of chemicals. They're too poorly educated to know that a plant's roots are there to hold the plant upright AND to suck chemicals out of the soil.

I'm sure you know a bonehead like this. Get a copy of this and give it to them. They need educating.

For the rest of us, we can amaze the boneheads by growing tasty giant tomatoes in sand, vermiculite or pebbles in the dead of winter! They won't know how it's done. In fact, look at all the people that travel through the pavilion at Epcot Center in Florida that features hydroponics. They come out believing it's high-tech. Nuts! It's been around for at least

a century!

This is an updated and revised edition of a classic book that has been in print since '77. Chapters cover history, simple systems, equipment, building a greenhouse, growing media, nutrient solutions, plant care, plant diseases, insect problems, and you get a list of reference materials and suppliers.

Hydroponics can be as simple as a 10" oval pan on a simple wooden frame filled with pea gravel or wood shavings. Or it can be an intricate greenhouse with pumps and timers and lights. It's whatever you want it to be.

Get a copy of it. If you can develop a giant form of Venus Flytrap that eats mothers-in-law, let me know. I'm in need! Otherwise grow some potatoes or sweet corn. Sunflowers might be difficult. Great first book. Get started! 5 1/2 x 8 1/2 paperback 142 pages

Cat. no. 610

\$12.00

### REFRIGERATOR REPAIR UNDER \$40

by Douglas Emley

Hey! I know what you're thinking. You can grab that old refrigerator out in the alley, fix it up, and use it to keep a barrel of beer cold and on tap! Great idea! Or maybe you just need a place to store your mother-in-law's body while you figure out where to bury her. Whatever your needs, here's a book that will help you get a junk refrigerator going again. Or keep the one in the kitchen going.

The author states that he will tell you how to fix home vapor-compression refrigerators and freezers, not gas refrigerators or air conditioners. He will show you the easiest and fastest way of diagnosing the problem, not necessarily the absolute cheapest method of repair. He will show you how to use the simplest tools to get the job done, and won't tell you to buy expensive equipment to make a one-time repair. He won't go into theory. He just tells you how to get

## FIX THAT 'FRIDGE!

the refrigerator going NOW! (And that's important if you're thirsty for a beer, or the cops are at the back door...)

Chapters include system basics, special types of refrigerators, getting started, compressor running but refrigerator not cold, compressor not running and refrigerator not cold, ice or water buildup, and flukes and unusual complaints.

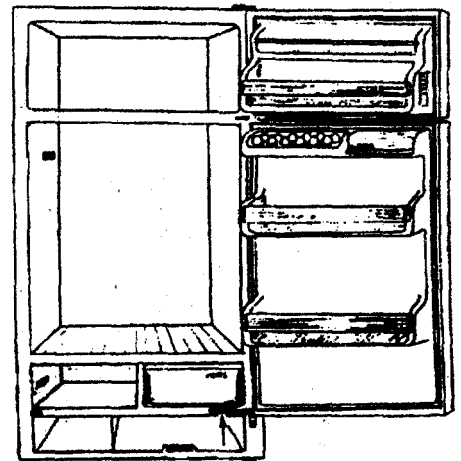
You won't be shown how to recharge a refrigerator because that costs more than \$40, and you need special equipment. The author is obviously an experienced repairman,

and he'll show you how to decide whether the machine is worth fixing or should be junked. I know from experience that I've used two very expensive (when new) side-by-side refrigerators in the past four years that did not always cool. Because they needed expensive repairs? No. Just simple repairs – the very thing described in this book.

This obviously isn't the ultimate book on refrigerator repair, but you'll learn a lot of practical how-to. You'll get your money's worth in the price of this book. (And I think, a lot more.) It will be one more feather in your cap. All the brain-dead yokels who sit on their butts and watch the world go by will have even greater reason to think "you can do everything! Wow!". Read this book, and you will know more about refrigerators than they ever will.

Unusual. Worth having. Practical hints and tips. Consider it carefully. 8 1/2 x 10 1/2 paperback 68 pages  
No. 2032

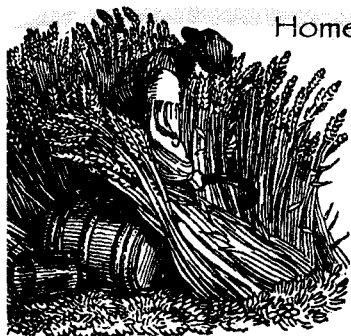
\$12.95



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Homesteading, Survival, Alternate Energy, and more....



## SAWMILL BLADES

**CIRCULAR SAWMILL BLADES**  
*reprinted by Lindsay Publications*

These pages, reprinted from two different 1880's books, will show you how to make, set and true up circular saw blades. You'll get a brief lesson on setting saw teeth and on hammering a bent circular saw blade back into truth — only a few pages long but the best explanation I've been able to find yet.



Pages from the second book "*Leffel's Construction of Mill Dams and Bookwalter's Millwright and Mechanic*" from 1881 will reveal how two different sawyers of 30 years experience take a sheet of steel and layout a 50" circular sawblade from scratch. This method produced blades able to saw, before resharping, as much as 4500 feet of bark-covered hardwood taken from the Missouri river still

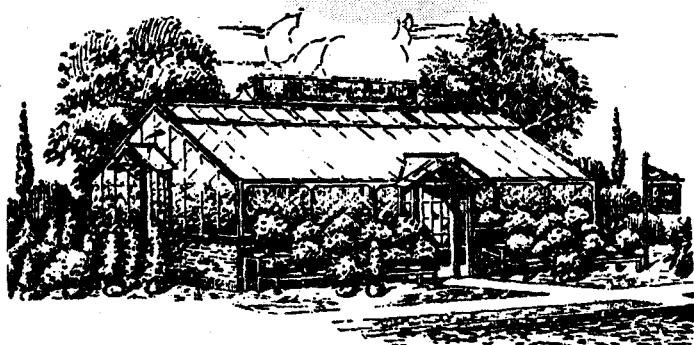
emb e d d e d with sand and grit. And you also get another set of brief instructions on hammering a blade back into truth.

Rare information! Anyone even thinking of building or running a sawmill MUST have this. The original books cost me a fortune, but your cost is practically nothing when you consider the rarity of the information. Order a copy! 5 1/2 x 8 1/2 booklet 22 pages  
Cat. No. 896

\$3.50

# HOMESTEAD!

*Tell the Boss to Shove It!*



## FIVE ACRES AND INDEPENDENCE

*by M. G. Kainb*

Tell the boss to hang it, and move to the open country and homestead! It's possible. This reprint of the 1935 original will show you as it did thousands during the Depression how to survive comfortably on five acres. You'll learn about greenhouses, coldframes, soil, manure, fertilizers, compost, tools, weeds, orchards, pruning, grafting, seeds, transplanting, barriers, things to sell every day, grapes, storage, and much more. There's so much info here at such a low price, you can't afford not to have a copy. 397 pages 5 1/2 x 8 1/2 paperback

Cat. no. 608

\$6.95



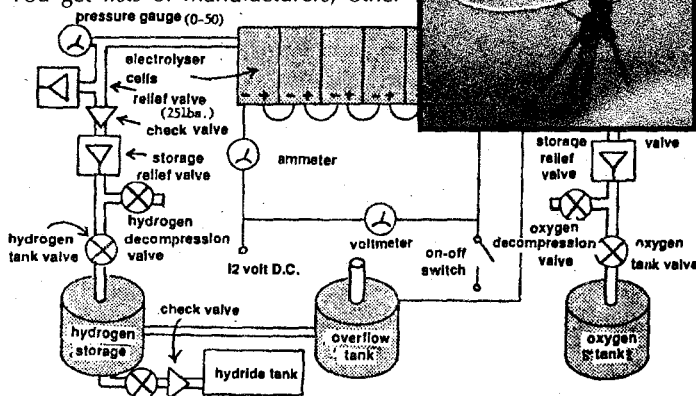
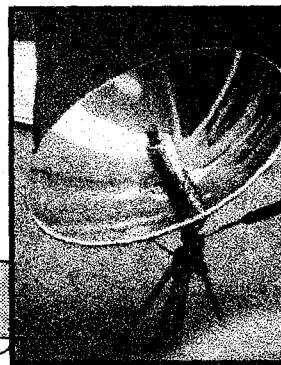
## FUEL FROM WATER

Energy Independence with Hydrogen

### FUEL FROM WATER

*by Michael A. Peavey*

Here's the best book of its type that I've seen yet. You'll read about hydrogen generators, storage devices, modifications of autos for using hydrogen fuel, the hydrogen homestead and more. You get lists of manufacturers, other



books, and sources of additional information.

Chapters include electrolysis production of hydrogen, chemical hydrogen production, fuel from trash, storing hydrogen, engine modifications, electricity from hydrogen, stationary applications, safety and the hydrogen economy.

You get both practical how-to and lots of commercial how-to that might be too expensive or difficult for you to use. But even the high end equipment will offer ideas that you might be able to use.

Hydrogen can be useful not

only for powering automobiles and other engines, but it can be used to store energy generated by windmills. Why store electricity in lead-acid cells if you just want to heat your house? Burn the hydrogen in a motor-generator unit to convert it back to electricity when needed. These are some ideas to consider.

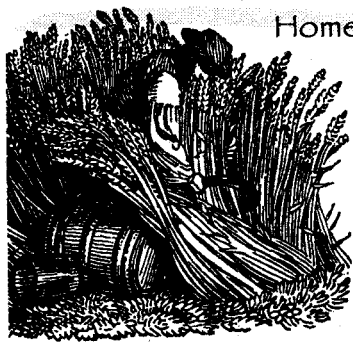
Excellent book. Great theory. Great ideas. Loads of useful illustrations. We've sold countless copies of this book over the years. Rare information. Get a copy. I think you'll like it. 8 1/2 x 11 paperback 250 pages

Cat. no. 2010

\$19.95



Homesteading, Survival, Alternate Energy, and more....



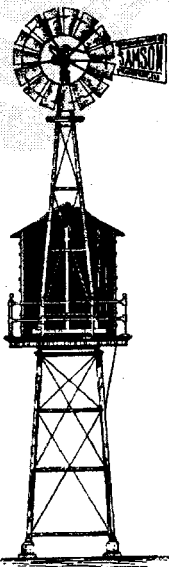
## Samson Windmills

**SAMSON OIL-RITE WINDMILLS**  
by Stover Mfg. and Engine Co.

Just about every farm at the turn of the century located in the Midwest and Plains states had a windmill to pump water for livestock. Here's the sales catalog for one of the leading manufacturers of those mills.

You'll see all the mechanical details: the gears, bearing, vanes, pumps, and the rest. And you'll get complete specifications.

If you're interested in wind power, this is a great reference, since these mills were built to perform and last. I'm sure many are still in operation. If you're going to design your own windmill, it might pay to look at a proven design. And besides, the price is right. 8 1/2 x 11 booklet facsimile reprint 22 pages  
Cat. no. 2011



\$4.95

## Windpower Handbook

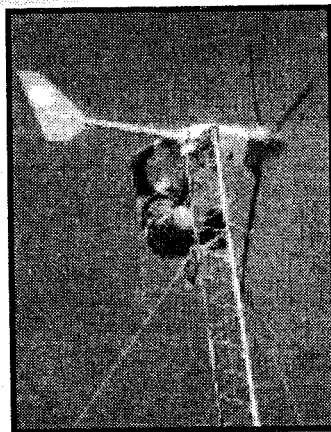
**WIND POWER  
FOR HOME & BUSINESS  
Renewable Energy  
for the 1990s and Beyond**  
by Paul Gipe

From the back cover:

"This is the most comprehensive guide to modern wind machines available. These rugged, cost-effective designs are suitable for homeowners, farmers, and small business owners already served by electricity, as well as for those who want to live 'off the grid,' beyond the reach of utility lines. Whether powering all or only a portion of a user's needs, modern wind turbines make economic and environmental sense today....

It explains how to measure the wind, how to estimate the output from typical wind turbines, how to evaluate the best technology for each application, and how to install and operate a small wind power system safely...."

Chapters include introduction, how to use the wind, measuring the wind, how much to expect, does wind pay?, what works and what doesn't, towers, cutting costs - not corners, buy-



ing a wind system, interconnection with the utility, stand-alone power systems, pumping water, siting, installation, operating and maintaining a small wind system, safety, looking to the future, and appendices.

You get a well-written information-packed book that will deliver loads of information. The price is a bit high for my taste, but this delivers useful information. It could save you a lot more money than it costs. Consider it carefully. 6x9 paperback 413 pages

Cat. no. 2030

\$35.00

# WINDMOTORS

**WINDMOTORS**

by F. E. Powell

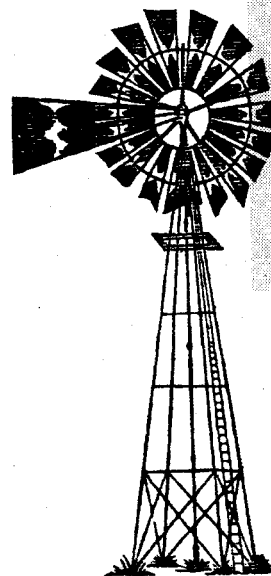
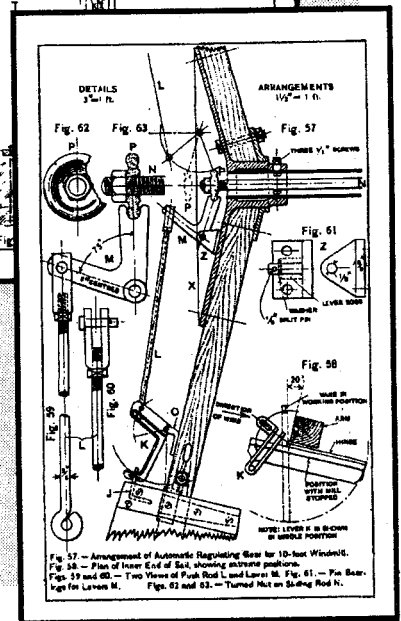
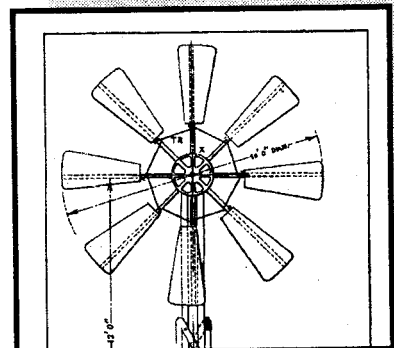
reprinted by Lindsay Publications

Put the wind to work with one of these turn-of-the-century designs.

You'll learn about different types of windmills, some of them unusual. Then you'll be shown how to build a model tower windmill similar to those in Holland.

Chapter 3 will show you how to build a real power-producing windmill with three foot diameter sails. It may be a small windmotor, but it can drive a small dynamo. You get all the important design details.

In Chapter 4 you are shown how to build a 6 foot diameter windmill capable of driving a 30 watt dynamo at 16mph. You'll see many detailed drawings showing how the



all-wood machine is built, and how metal gearing brings the power down to ground level.

Another chapter reveals a 10 foot diameter windmotor. The last chapter gives you tips on generating electricity—high tech in 1910! Obviously better gen-

erators are available now, but the basic principles still apply, and the control methods still work.

I think you'll enjoy this book. These mills may not be as hot as modern designs, but building one of these babies should be relatively easy and low-cost. You get great designs from a simpler time when simpler materials were used to get surprisingly good performance.

A really nice little book to have. Low cost. Get a copy.

5 1/2 x 8 1/2 paperback 88 pages well-illustrated

Cat. no. 4279

\$6.95

# NO PICTURES. (Thank God!)

The Ultimate Compendium of  
Bizarre and Unusual Facts

## THE ODD INDEX

9 Types of Angels  
31 Weird Tourist Attractions  
228 Euphemisms for Sexual Intercourse  
The 9 Deadliest Dogs  
And Much More!

Stephen J. Spignesi

### THE ODD INDEX The Ultimate Compendium of Bizarre and Unusual Facts

by Stephen J. Spignesi

Now here is something truly ridiculous and disgusting – something I know you have to have. It's just for fun, especially if you like vulgar humor.

From the backcover: "Welcome to the Land of Odd – a place where roosters can tell the future, where people have names like League of Nations and can blow smoke out of their eyeballs. This madcap collection overflows with nearly 10,000 eye-popping, bizarre cultural tidbits – fantastic, far-out, freaky, and funny – all irresistible:

14 ridiculous U.S. sex laws; 11 signs of demonic possession; 16 crucified saviors other than Jesus Christ; 6 odd ways of dying on a farm; 20 secret subliminal messages on records; 6 forms of penis modification; 7 peculiar sexual phobias; 11 plagued places; 39 mega-movie blunders; 73 literary classics initially rejected by the publisher"

You can impress your friends by memorizing 228 euphemisms for sexual intercourse, by knowing the eleven deadliest airline disasters, by knowing in what movie Candice Bergen briefly appeared topless, or in which movie Marlon Brando threw a moon!

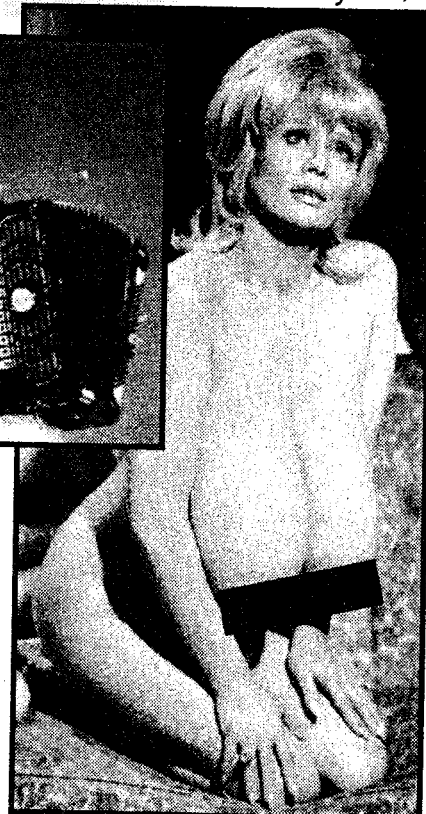
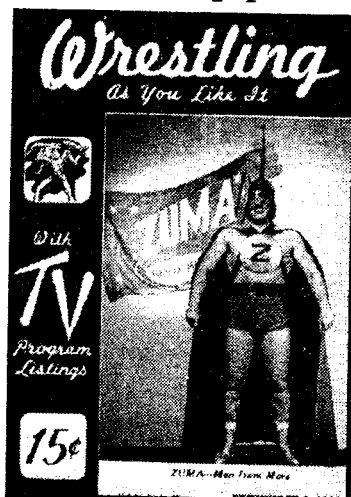
You get list after list of useless information. Just what you need to further clutter your hopeless mind. No pictures. Thank God! So stop hiding the salami long enough to order a copy of this. While you're doing that, I'm going to memorize the eleven steps of embalming a body. (Just might practice on a certain mother-in-law...) 6x9 paperback 399 useless pages

No. 6073

\$12.95

# Encyclopedia of Bad Taste!

(Contrary to popular belief, Lindsay is not listed here. Not yet...)



### THE ENCYCLOPEDIA OF BAD TASTE

by Jane & Michael Stern

I know for a fact YOU'LL enjoy this hilarious, well-illustrated book because you have proven beyond any reasonable doubt that YOU have no taste whatsoever. How do I know? You're reading this catalog....

You get an entertaining and amusing history and illustrations on every imaginable example of bad taste from accordion music to zoot suits. And if you think you're really a smooth dude, you had better think again. You ain't nothin' fella if you eat Twinkies and Spam, watch your ant farm, think Dolly Parton is a babe, watch professional wrestling from your reclining chair, drive your van to visit a wax museum, collect sno-globes and Hummels, and enjoy heavy metal music.

This is a great book. After all the authors put down (and rightly so) all the good things in life from Barbie dolls, beer and big breasts to Frederick's of Hollywood to Bob Guccione.

Get a copy. Get your feelings hurt. Or give a copy to someone who needs his feelings hurt. Join the rest of us low-class red necks and enjoy life. (If I can sell enough of these encyclopedias, perhaps I can buy some fuzzy-dice for my rear view mirror and a video tape of Liberace!)

Fun book. Lot's of laughs. Valuable weapon for knocking snooty people down off their pedestals. Order a copy! 9x10 paperback 331 pages  
Cat no. 6048

(Don't call & complain about this photo of Chesty Morgan. I can't help it if the woman is deformed...)

\$16.00

## Go thru life in an hypnotic trance!

### HYPNOTISM & HYPNOTIC SUGGESTION

edited by Neal & Clark

From the year 1900 comes this "scientific treatise on the use and possibilities of hypnotism, suggestion, and allied phenomena by thirty authors." Learn about hypnotism by direct suggestion, how to control people in their waking state, suggestion in trance phenomena, how to hypnotize difficult subjects and much more. Quite an interesting book. Order a copy! 5 1/2 x 8 1/2 260 pages

No. 4627

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Send it to Lindsay Publications Inc, PO Box 538, Bradley IL 60915-0538

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All books are guaranteed. If you find a book that doesn't meet your expectation, return it immediately for credit or refund. I don't expect you to keep and pay for a book you don't like. You don't have to explain, but if you do, it will help us improve the selection we offer.

We don't offer an approval service. Don't order 8 books and expect to return 7. Order books you really want. You'll find as tens of thousands of other people have, that the books we offer are so good, we don't really need to offer a guarantee. But we do anyway. You'll be satisfied. We guarantee it. There's no other way to do business.

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For instance, you order six books, five of which are shipped COD immediately, and one is backordered. Your COD charge is for all six books. The backordered book will be shipped at no additional expense to you as soon as available.

**CANADIAN CUSTOMERS** — Please remit in Canadian Postal Money Orders in US Dollars, Visa, Mastercard, or check drawn on a US Bank. We can't find a US bank than wants to handle checks from Canadian Banks. It must be a conspiracy!

**Phone Your Order In** — Call us at 815/935-5353 during normal business hours (nothing is ever normal when you're forced to work with Lindsay!) and we can get your order into the system immediately.

**FAX Us Your Order** — Fax us all the necessary information at 815/935-5477. On line 24-hours.

**COD Orders** — COD's are sent UPS at a cost of several dollars more.

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**SECOND DAY AIR** — UPS Second Day air (2-day delivery) costs less than next day air.

**PRIORITY MAIL** — First Class Mail (all 1st class mail is airmail) costs several dollars more depending on weight and is supposed to provide 3 day delivery to any zip code. (If you live in the South Pacific, don't hold your breath!)

**Regular Shipping** — Orders are normally shipped via Book Post (US Postal Service) or via UPS depending on the weight of the package.



# Lindsay is perfecting an ELECTRIC ARC HOT-DOG COOKER!



Why would Lindsay want to cook hot-dogs with an electric arc? Why does Lindsay do anything? We don't know. *And don't ask!*

Please examine the books in this, his latest, bizarre catalog. Look carefully at the new rare Tesla coil book just off the press. Don't overlook the quarter-million volt impulse transformer. (Hook that up to your mother-in-law's left fribart and watch her jump!) And there's always the new vacuum book, and others.

Send us an order. We need the money. We're gonna have one horrendous electricity bill. Lindsay is promising to try to fry the neighbor lady's cat next, then the neighbor lady herself, and maybe even *her* mother-in-law. We've called the authorities, but they can't get close enough to stop him because of the heat (and the smell).

This could mean big trouble. If the power suddenly goes off in your part of the country, you'll know who to suspect! Help us! Send an order!

Lindsay's Poor Employees

**LINDSAY PUBLICATIONS INC**

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